4. Transportation

4.1 Introduction

4.1.1 Mode Transport Planning have been appointed by Gallagher Estates to prepare constructive representations setting out the highways and transportation package to support the delivery of circa 1,500 dwellings at Home Farm, Sandhills, north of Walsall.

4.1.2 The site is situated in Brownhills and is bordered to the north by the Wyrley and Essington Canal, to the south by the A461 Lichfield Road, to the east by farmland and to the west by existing residential properties which front onto the A452 Chester Road.

4.2 Planning Policy and Guidance

4.2.1 The delivery of residential development in this location has been considered in relation to relevant transportation policies of the Black Country Core Strategy (BCCS), adopted 2011, and the relevant long-term themes of the West Midlands Local Transport Plan 3 (LTP3), covering the period of 2011 to 2026.

4.2.2 The key policies from the BCCS, specifically relating to the delivery of new development, are as follows:

- CSP5 – Transport Strategy;
- HOU2 – Housing Density, Type and Accessibility;
- TRAN1 – Priorities for the Development of the Transport Network;
- TRAN2 – Managing Transport Impacts of New Development;
- TRAN4 – Creating Coherent Networks for Cycling and Walking; and
- TRAN5 – Influencing the Demand for Travel and Travel Choices.

4.2.3 The key themes from the West Midlands LTP3, specifically relating to the delivery of new development are as follows:

- Long Term Theme 1: Regeneration, thriving centres, corridors and gateways;
- Long Term Theme 3: Modal Transfer and the Creation of Sustainable Travel Patterns; and
- Long Term Theme 6: Improved Local Accessibility and Connectivity.

4.2.4 The long-term themes of the West Midlands LTP3 aim to reduce reliance on the private car in favour of more sustainable modes of transport for many journey purposes.

4.2.5 Any transportation submissions to support a forthcoming planning application would be prepared in line with the Department for Transports (DfT's) Guidance on Transport Assessment (GTA) with reference to DfT circular 02/2013 (The Strategic Road Network and the Delivery of Sustainable Development) where traffic impacts are envisaged on the strategic highway network.

4.3 Local Highway Network and Access Options

4.3.1 The site is bordered by the A452 Chester Road to the west and the A461 Lichfield Road to the south. The A452 Chester Road and the A461 Lichfield Road form a traffic signal controlled junction at the southern corner of the site.

4.3.2 The A461 Lichfield Road provides a linkage to Walsall to the south-west of the site and to the A5 Watling Street to the north-east of the site. The A5 Watling Street links to the M6 toll via junctions T5, T6 and T7, to the M6 at junction 12 and to the M42 at junction 10.

4.3.3 The A452 Chester Road provides a linkage into Brownhills and the A5 Watling Street to the north of the site and to Sutton Coldfield, Erdington to the south. The A452 Chester Road also provides linkages to Great Barr and West Bromwich via the A4041 Queslett Road. The A452 Chester Road also links to the M6 at junction 5 and also at junction 6, via the A38 Aston Expressway. The A38 Aston Expressway provides a direct route into the centre of Birmingham.

4.3.4 In line with policy TRAN2 of the BCCS the traffic impacts of the development proposals will be considered in relation to existing conditions on the surrounding highway network and where necessary appropriate mitigation measures will be provided to counter any forecast adverse impacts directly attributable to the development proposals.

4.3.5 The extent of the off-site highways study area will be agreed in consultation with Walsall Council (WC) and the Highways England (HE) as part of any forthcoming planning application. As an absolute minimum, it is envisaged that the highways impact of the development will need to be considered at the A461 Lichfield Road/A452 Chester Road traffic signal controlled junction.

4.3.6 Vehicular access to the site will be provided via two points, the first will be formed with the A452 Chester Road and the second will be formed with the A461 Lichfield Road. Indicative sketch layouts of the site access proposals are shown on drawings **P32-3351-PS-001 Rev A** and **P32- 3351-PS-002 Rev A.**

4.3.7 It should be noted that the access drawings (appended) are preliminary in nature and are indicative layouts only; they will ultimately be subject to further assessment and design iterations, subject to consultation with, and approval from, the Local Highway Authority. Further assessment/design of the accesses will be subject to the following:

- Acquisition of highway boundary plans;

- Updated (more recent) traffic survey data; and
- Further consideration of the driveway accesses along Lichfield Road (in vicinity of the proposed signalised junction).

4.3.8 A high-level appraisal of site access junction capacity has been undertaken using average vehicle only trip rates from the TRICS database for houses privately owned situated within the West Midlands region. The calculated trip rates and resultant traffic generated by the development proposals are summarised in **Tables 4.1** and **4.2** below.

Table 4.1: TRICS Trip Rates (per dwelling)

Time Period	Arrivals	Departures	Two-Way
08:00-09:00 (AM Peak)	0.184	0.449	0.633
17:00-18:00 (PM Peak)	0.437	0.265	0.702

Table 4.2: Traffic Generation (1,500 dwellings)

Time Period	Arrivals	Departures	Two-Way
08:00-09:00 (AM Peak)	276	674	950
17:00-18:00 (PM Peak)	656	398	1053

4.3.9 Baseline traffic flows (2009) for the A452 Chester Road and the A461 Lichfield Road have been obtained from Mott MacDonald and these have been growthed to 2023 levels (five years post registration of a planning application, assuming a submission during 2018).

4.3.10 The development traffic has been distributed assuming a 60:40 split between access points, with the bias towards the A461 Lichfield Road access, and proportionally in line with the direction of travel on either the A452 Chester Road or the A461 Lichfield Road, obtained from the Mott MacDonald traffic count data. The results of the analysis are summarised in **Table 4.3** and **Table 4.4**.

Table 4.3: Priority Access with A452 Chester Road – 2023 Base + Development Scenario

Arm	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Site Access	0.80	4	0.84	4
A452 Chester Road	0.12	1	0.27	1

Table 4.4: Signal Access with A461 Lichfield Road – 2023 Base + Development Scenario

Arm	AM Peak		PM Peak	
	DoS	Queue	DoS	Queue
Site Access (Left Turn)	70%	6	77%	4
Site Access (Right Turn)	73%	6	81%	5
A461 Lichfield Road (S)	76%	17	84%	22
A461 Lichfield Road (N)	68%	13	69%	10

4.3.11 The results summarised in **Tables 4.3** and **4.4** indicate that both potential site accesses are forecast to work within acceptable capacity parameters.

4.3.12 The access strategy provides a bias towards a main access junction formed with the A461 Lichfield Road. It has also been concluded that given the RFC/DoS forecast for the current access designs options, that should any further development be brought forward, that an additional point of access would likely be required in order to accommodate additional traffic demands.

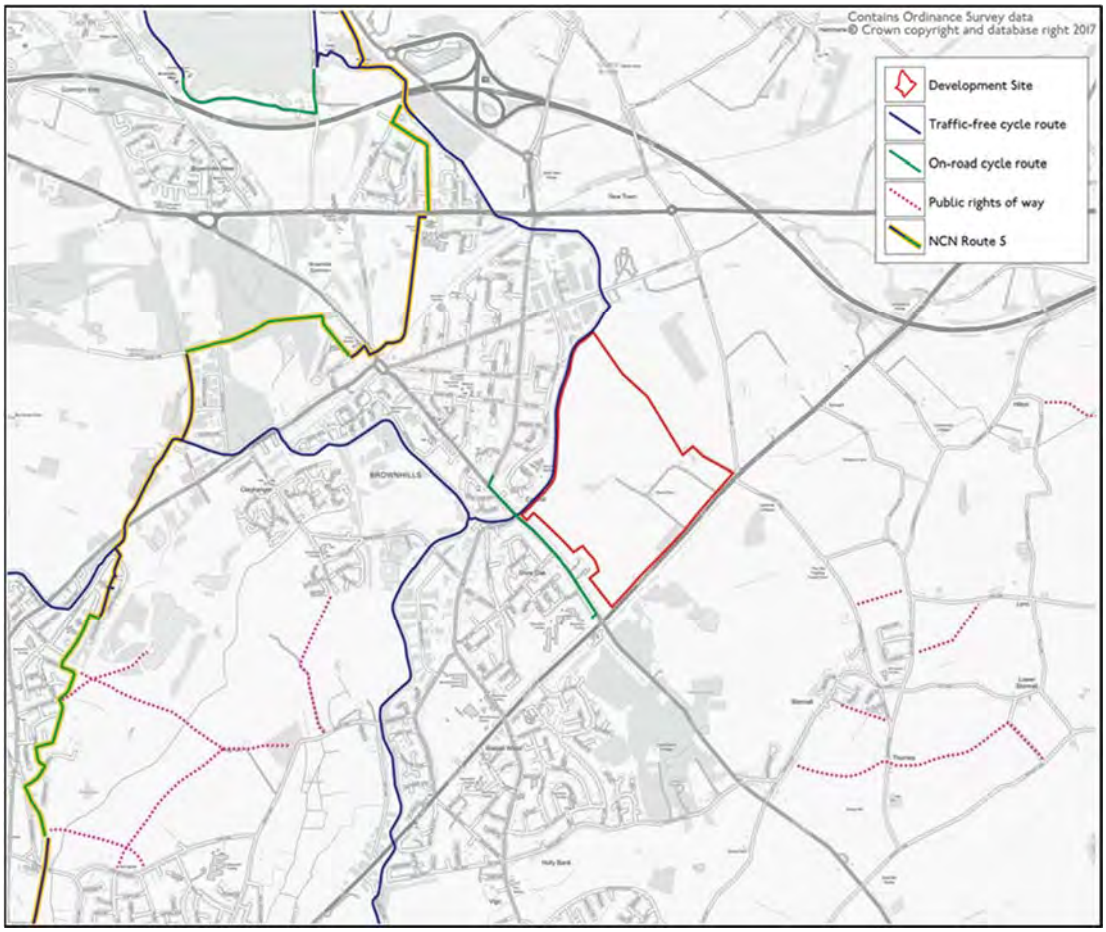
4.3.13 Given the length of available site frontage with the A461 Lichfield Road, it is also considered that a roundabout option may also offer a potential site access solution, subject to further capacity and design checks.

4.4 Sustainable Accessibility

Pedestrian Connectivity

4.4.1 The existing pedestrian and cycle infrastructure network in the area surrounding the site is illustrated on **Figure 4.1** overleaf.

Figure 4.1: Existing Pedestrian & Cycle Facilities



4.4.2 There are no Public Rights of Way (PROW) which cross or abut the site. The A452 Chester Road and A461 Lichfield Road both benefit from existing footways on both sides of the carriageway. These link with other footways on adjoining roads, thereby providing a network of footways throughout the surrounding area.

4.4.3 BCCS policy TRAN1 describes how all new developments will address the transport network and provide adequate access for all modes, including walking, cycling and public transport. BCCS policy TRAN4 also describes how new developments should have good walking and cycling links to public transport nodes and interchanges. The internal highway layout of the development proposals will provide pedestrian facilities that will link with those on the existing highway network surrounding the site. The main trip attractors for those on foot are generally situated to the north and west of the site and accordingly improvements to pedestrian crossing facilities on the A452 Chester Road may be required to facilitate east-west movements.

Cycling Connectivity

4.4.4 The existing cycle route provision in the area surrounding the site is illustrated on **Figure 4.1**. The nearest cycle route to the site runs along the towpath on the southern side of the Wyrley and Essington Canal. From this route, it is possible to access National Cycle Route 5 when travelling northbound, and routes through Brownhills and Walsall Wood southbound.

4.4.5 National Cycle Route 5 is a long-distance cycle route, which routes into Birmingham City Centre, and runs to the extents of Bangor and Reading.

4.4.6 BCCS policy TRAN4 describes how new developments should have good walking and cycling links to public transport nodes and interchanges and how all new development should provide cycle parking. The nearest cycle route to the site runs along the towpath on the southern side of the Wyrley and Essington Canal. The canal abuts the northern boundary of the site and presents a key opportunity to provide linkages between the site and the existing cycling network.

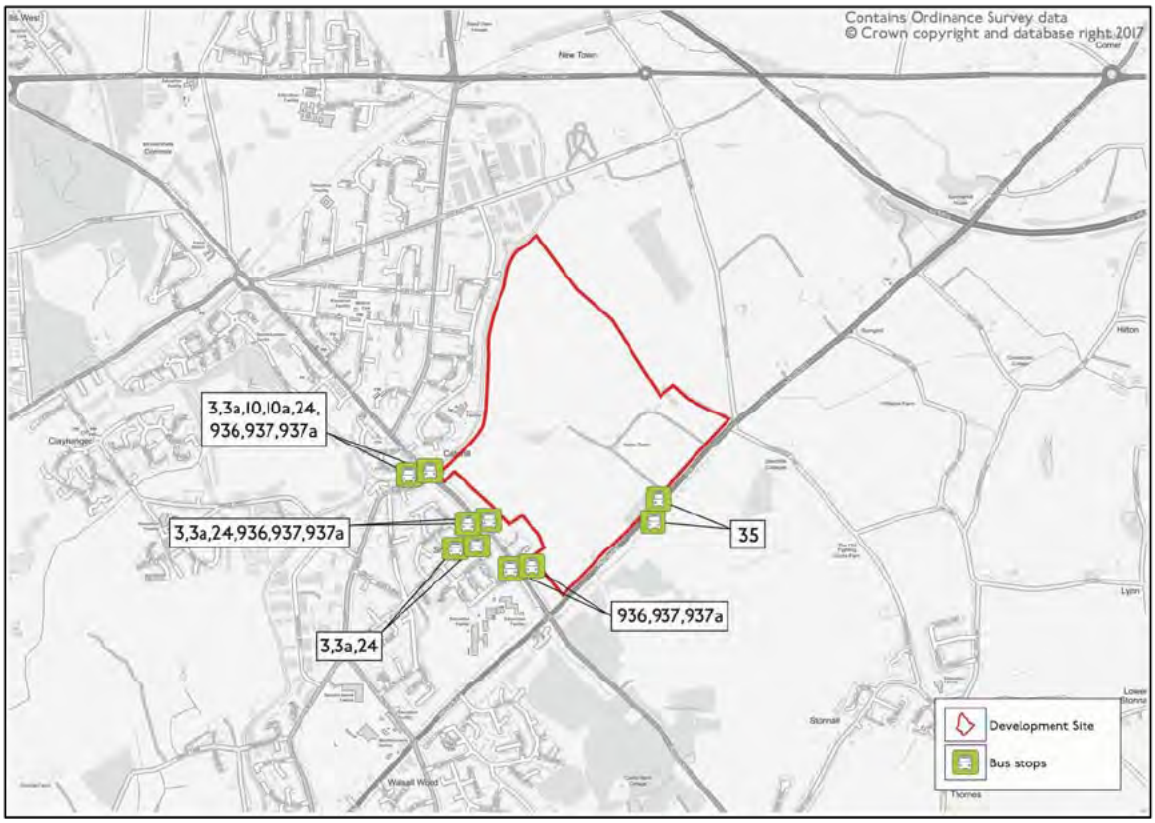
4.4.7 Within the site boundary primary roads will include shared foot/cycleway facilities with cyclists expected to share the carriageway with other road users on lower order roads.

4.5 Public Transport

4.5.1 The nearest bus stops to the site are situated on the A452 Chester Road and the A461 Lichfield Road. These stops are shelter type bus stops and benefit from timetable information. The stops on the A452 Chester Road nearest to the proposed site access point serve the 3/3a, 10/10a, 24, 936 and the 937/937a services. The stops on the A461 Lichfield Road additionally serve the service number 35.

4.5.2 The service numbers 3/3a, 10/10A, 24, 35, 936, 937/937a operate within the vicinity of the site; **Figure 4.2**, overleaf, illustrates the location of bus stops and services that stop within close proximity, ultimately serving the site.

Figure 4.2: Bus Service Accessibility



4.5.3 The frequencies of these bus services are summarised in **Table 4.5**.

Table 4.5: Summary of Bus Service Frequency

No.	Bus Route	Frequency	
		Mon-Sat	Sunday
3/3a	Cannock - Brownhills - Walsall	4 per hour	Hourly
10/10a	Walsall - Burntwood via Brownhills	Every 20mins	Every 20mins
24	Catshill - Walsall Wood via Brownhills	Hourly	No Service
35/35a	Walsall - Lichfield via Aldridge, Druids Heath	Hourly	Hourly
936	Birmingham, Lower Bull Street - Brownhills West	Every 20mins (AM&PM)	No Service
937	Birmingham - Brownhills via Kingstanding	Every 30mins	No Service
937a	Birmingham, Lower Bull Street - Brownhills	Hourly (PM)	Hourly

4.5.4 The level of combined bus service frequency in the area immediately surrounding the site is high and it is not considered to be necessary to provide increased service frequencies as a result of the development proposals. Any required improvements would simply serve to increase accessibility to bus services for all dwellings. Opportunity exists to explore the diversion of existing bus services into the site using a diversionary loop in order to deliver this.

4.5.5 There is opportunity to bring forward smaller parcels of development via a single point of access without investment in significant volumes of public transport infrastructure given that bus services already run along both the A461 Lichfield Road and the A452 Chester Road. This would likely involve relocation of existing bus stops in order to maximise accessibility to the development proposals.

4.5.6 The nearest railway stations to the site are Walsall Railway Station and Shenstone Railway Station, which are approximately 4.6 miles southeast and approximately 2.45 miles east of the site, respectively. Many of the bus services operating within the vicinity of the site also stop at St Paul's Bus Station in Walsall, which is a short three to four-minute walk to Walsall Railway Station; providing an opportunity to change between modes.

4.5.7 From these railway stations, it is possible to access Birmingham New Street directly on a frequency of every 15-minutes from Walsall railway station, and approximately every 20-minutes from Shenstone railway station. From Birmingham New Street, it is possible to travel onwards towards major UK destinations such as London, Glasgow and Cardiff including other destinations en-route.

4.5.8 It is possible also to access Walsall Railway Station via NCN route 5 (an approximate 30-minute cycle), which can be accessed from the site via the Wyrley and Essington Canal Cycle route, enabling travel between the site and the local railway stations possible via a range of modes of transport.

4.5.9 Walsall Railway Station does not have a car park, however does has 10 cycle storage spaces. Shenstone Railway Station has 20 car parking spaces, with 2 accessible spaces available for blue badge holders. It does not currently have any cycle storage spaces available.

4.6 Local Amenities

4.6.1 Policy TRAN2 of the BCCS sets out accessibility standards for new development, highlighting particular amenities and desirable journey tome distances to them via walking/public transport.

4.6.2 For the purposes of this analysis we have assumed that the development will have a density of between 35-45 dwellings per hectare, will provide less than 25% flats and will provide a high amount of housing suited to families. Those amenities of interest

and the indicative journey times to them are summarised in **Table 4.6**.

Table 4.6 Summary of BCCS Accessibility Standards

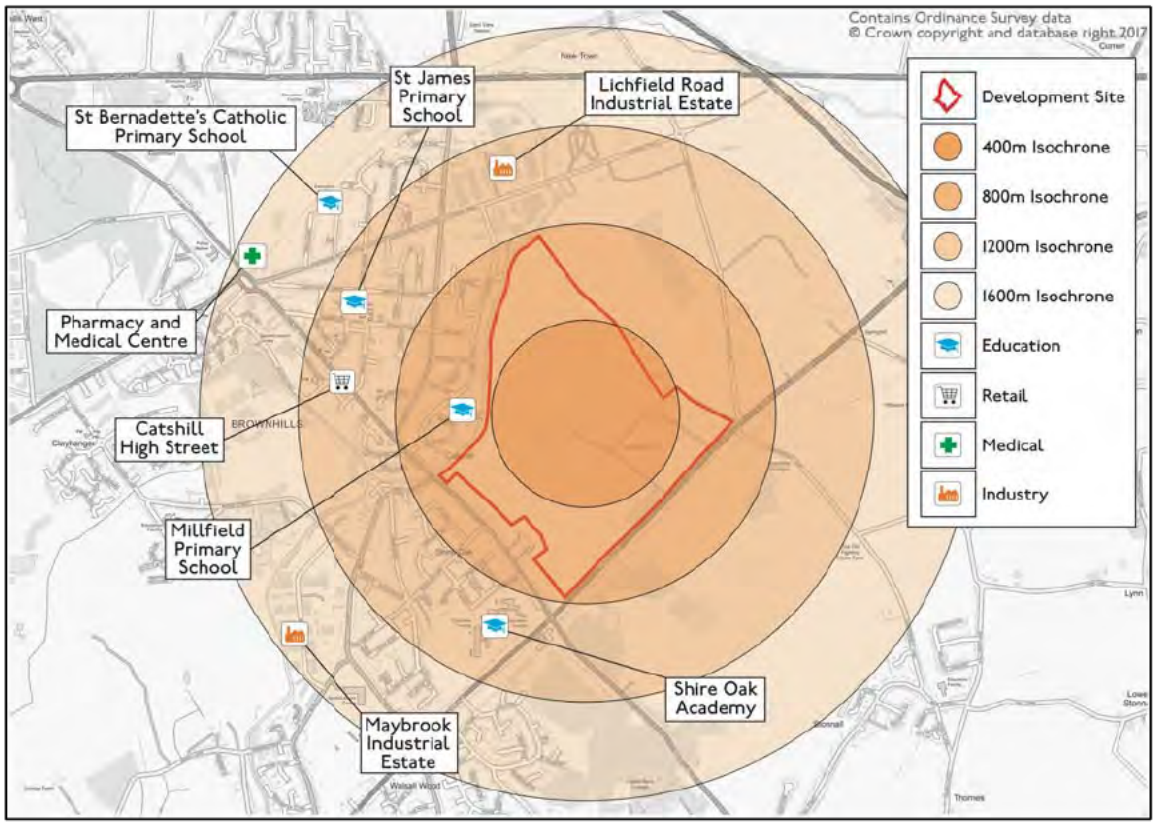
Land Use	Accessibility
Employment – Strategic Centre or other Employment Centre	30 mins (walk/public transport)
Health – Doctors Surgery or Walk-in Centre	15 mins (walk/public transport)
Fresh Food – Centre or Food Store	15 mins (walk/public transport)
Education – Primary School	10 mins (walk only)
Education – Secondary School	20 mins (walk/public transport)

4.6.3 **Figure 4.3**, overleaf, illustrates key local amenities and employment areas plotted in relation to concentric isochrones representing 400m, 800m, 1,200m and 1600m journey distances radiating from the site. These isochrones represent approximate journey times from the site for those on foot where 400m represents a five-minute journey on foot, 800m represents a ten-minute journey on foot and 1,200m represents a 15-minute journey on foot and 1,600m represents a 20-minute journey on foot. The 1,200m isochrones also represents an approximate 5-minute journey by bicycle.

4.6.4 The isochrones show that many local amenities are accessible within reasonable walking and cycling distances from the site including:

- Schools – Millfield Primary School, St James' Primary School, St Bernadette's Catholic Primary School, Shire Oak Academy;
- Pharmacies/Medical Centres – The Park View Centre;
- High Street – Catshill High Street; and
- Employment – Lichfield Road Industrial Estate, Maybrook Industrial Estate.

Figure 4.3: Walking Isochrones & Key Amenities



4.6.5 Walsall town centre is also located 4.6 miles southwest of the site's vicinity; with the town centre containing a wide array of amenities ranging from supermarkets to public houses.

4.6.6 Walsall Bus Service Map also indicates that a variety of bus services run past, or close to these local amenities, thereby making access to amenities possible by a range of modes of transport.

4.6.7 **Figure 4.3** shows that many of the core amenities specified in the BCCS are within acceptable walking distances to/from the site. The level of bus accessibility from the site is good and would provide improved journey times to many facilities. Public transport journey time modelling will be undertaken (using VISOGRAPHY or similar) to support the development proposals as part of a planning application and to demonstrate the level of accessibility to key amenities afforded by public transport.

4.7 Travel planning and smarter choices

4.7.1 Policy TRAN5 of the WCCS considers influencing the demand for travel and travel choices. Specifically, in relation to new development the use of maximum parking standards in conjunction with promoting and implementing smarter choices to help to reduce the need to travel are discussed. Policy CSP5 also supports this stance.

4.7.2 Accordingly, the development proposals will be supported by a robust Travel Plan that will seek to promote alternatives to the use of the private car. The Travel Plan will be prepared in line with the following national best practice policy documents:

- DfT – *Making Residential Travel Plans Work* (2005); and
- DCLG/DfT – *Good Practice Guidance: Delivering Travel Plans through the Planning Process* (2009).

4.7.4 The existing modal shift for journeys to work from Aldridge North and Walsall Wood ward as surveyed in the 2011 Census is summarised in **Table 4.7**. The development proposals would be expected to attract a similar if not better level of sustainable transport use for journeys to work as part of the Travel Plan proposals.

Table 4.7: Summary of Existing Modal Shift (Aldridge North and Walsall Wood Ward)

Mode of Transport	Modal Split (%)
Work Mainly at or from Home	3.96%
Underground, Metro, Light Rail, Tram	0.05%
Train	0.93%
Bus, Minibus or Coach	7.33%
Taxi	0.20%
Motorcycle, Scooter or Moped	0.50%
Driving a Car/Van	73.93%
Passenger in a Car/Van	5.75%
Bicycle	1.22%
On Foot	5.77%
Other Method of Travel to Work	0.37%
Total	**100.00%**

Source: www.neighbourhoodstatisitics.co.uk

4.8 **Summary of Discussions with Walsall MBC**

4.8.1 A meeting was held at Walsall Council (WC) offices on 13th December 2013: with [redacted] in summary:

- WBC welcomed the opportunity to see this initial transportation work undertaken;
- Not aware of other sites at this scale currently been promoted within Walsall;
- Historically smaller developments have come forward in recent years;
- A larger development was seen favorably at a high level (for its ability to contribute positively to highways mitigation);
- Access was generally deemed acceptable for the level of development; however, expressed that the main site access on A461 may require new traffic signals;
- Main concern was the existing A461 capacity from the site into Walsall;
- Hence, we discussed linking signals (they are currently not linked) to aid platooning vehicle movement and hence fee up capacity; and
- A strategy heavily based upon public transport and sustainable access will be key to delivering this development.

4.8.2 Further to the above, and more recently (*August 2017*), Walsall Council are currently undertaking an improvement scheme along the A461 Lichfield Road; the overall scheme aims to address the issues of growing congestion and capacity along this strategic route.

4.8.3 The scheme targets two key locations, including the A461 Lichfield Road/B4152 Salter's Road junction and the A461 Lichfield Road/A452 Chester Road (Shire Oak); both locations will be widened to increase capacity, they will benefit from new and improved pedestrian facilities and new traffic signals/communications technology will be introduced to improve efficiency and operation.

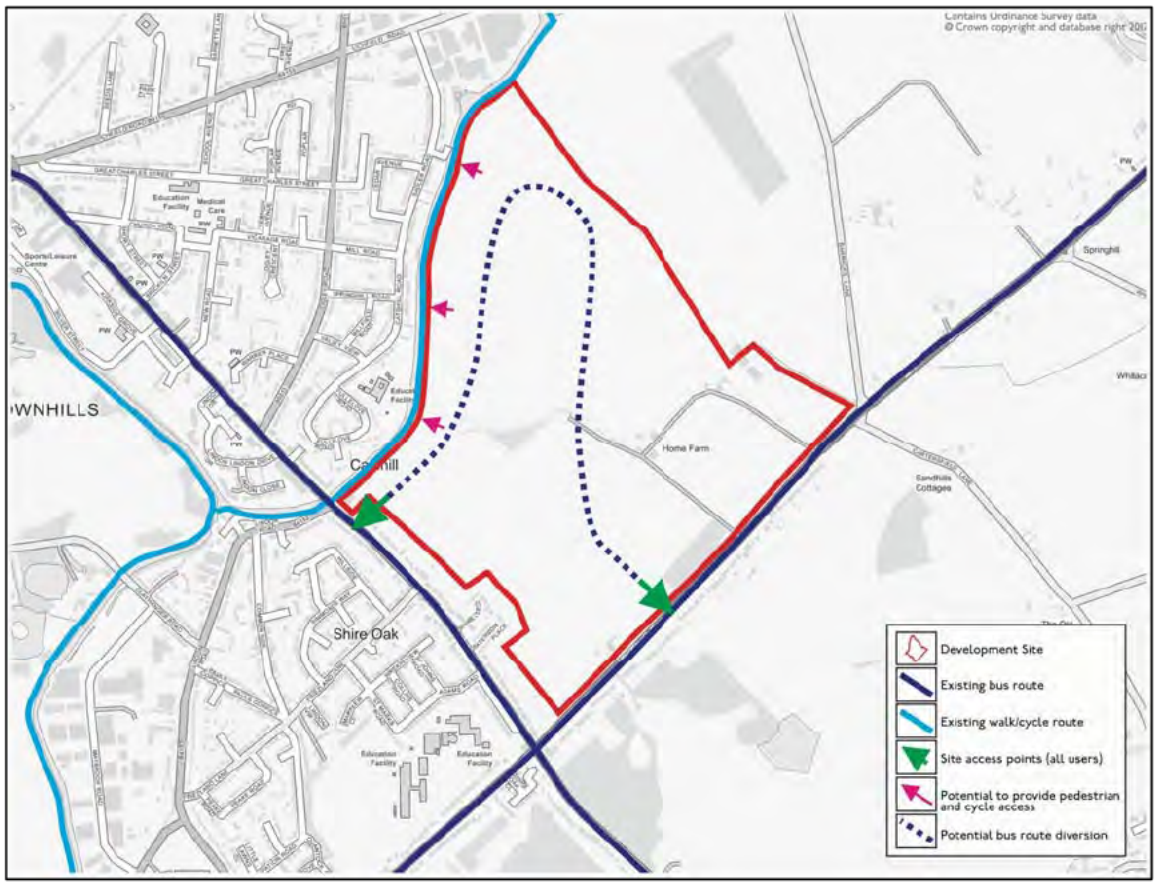
4.8.4 The proposed site access on Lichfield Road (signals) could potentially be incorporated within the network approach now being carried out by WCC; this could be achieved through various traffic signal management methods and optimisation techniques.

4.9 Summary

4.9.1 In summary, it is considered that the site can be delivered in line with the aforementioned improvement scheme and other site-specific infrastructure requirements to enhance accessibility and sustainability. The site-specific improvements are listed below, and are also illustrated on **Figure 4.4**:

- New site access formed with A452 Chester Road;
- New site access formed with A461 Lichfield Road;
- Linkages to the existing foot/cycleway running alongside the Wyrley and Essington Canal; and
- Diversion of existing bus to serve the site via a loop arrangement; including provision of high specification bus stop infrastructure.

Figure 4.4: Proposed Site Connectivity Plan



4.9.2 A Travel Plan would set out objectives, aims, targets, measures and a monitoring framework would ensure that the site is accessible for all modes of transport and as sustainable as possible.

4.9.3 There may be more off-site highway works required in order to mitigate development impacts at key junction locations/corridors, and these would be explored as part of a planning application.

DO NOT SCALE OFF THIS DRAWING.

OS NORTH

drawing title
Lichfield Road
Signalised Junction
Access Design

client
Gallagher
Estates

job title
Home Farm,
Sand Hills, Walsall

mode transport planning
Lombard House
145 Great Charles Street
Birmingham B3 3LP

t 0121 794 8390
e info@modetransport.co.uk
w www.modetransport.co.uk

mode
transport planning

scale	1:500@A3
drawn	JL
checked	bdf
created	Sept 17

A	07-09-17	Issued

drawing no.
P32-3351-PS-001

File: P:\Mode\J32-3351 SandhillsBrownhills, Walsall\P32-3351-PS-001a.dwg

OS NORTH

Anchor Bridge

144.5m

LINDON ROAD

Post

PH

2.4m x 43m Vis Splay

TCB

2.4m x 43m Vis Splay

148.7m

CHESTER ROAD

150.6m

1
1a
3
3a
5
9
16
21
35

drawing title: Priority Junction Access Design - Chester Road	client: Gallagher Estates	mode transport planning, Lombard House, 145 Great Charles Street, Birmingham B3 3LP; t 0121 794 8390; e info@modetransport.co.uk; w www.modetransport.co.uk	mode transport planning	scale 1:500@A3	A	07-09-17	Issued
	job title: Home Farm, Sand Hills, Walsall			drawn jwm			
				checked bdf			
				created Sept 17	drawing no. P32-3351-PS-002		

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5. Ecology

5.1 Background

5.1.1 Aspect Ecology has been appointed to advise Gallagher Estates in respect of ecological matters relating to promotion of land at Home Farm, Sandhills, Walsall through the Issues and Options Review of the Black Country Core Strategy.

5.1.2 An extended Phase 1 Habitat survey of the site was conducted in December 2013, to record main habitat types and species, identify areas of ecological interest, and provide an assessment of the potential use of the site by faunal species. A desktop study was also undertaken to source known records of protected or notable species and details of local site designations. This desktop study has since been updated in October 2015 to ensure background information is up to date.

5.1.3 This note provides a summary of the survey findings with regard to promotion of the land through the emerging plan making process, providing an overview of ecological issues with a focus on potential constraints and opportunities and overall ecological deliverability of the proposed allocation.

5.2 Site Description

5.2.1 The site comprises an 'L' shaped area of land to the north and east of Home Farm, Sandhills, located to the east of Brownhills in Walsall. The site is bordered by residential properties associated with Chester Road (A452) to the west, the Wyrley and Essington Canal to the north, and Lichfield Road (A461) to the south. Home Farm and associated farm buildings, residential properties and surrounding farmland lie to the east, excluded from the site itself but included as part of the wider survey area.

5.2.2 The site itself is dominated by arable farmland with a number of hedgerows and treelines at its margins. A track also runs through the middle of the site from Chester Road to the west to Home Farm, along which a small woodland area is located.

5.3 Ecological Baseline Conditions

Ecological Designations

5.3.1 Desktop study information received from the Multi-Agency Geographic Information for the Countryside (MAGIC) online database, Staffordshire Ecological Record and EcoRecord indicate that the site is not subject to any statutory nature conservation designations.

5.3.2 However, information returned from EcoRecord identifies part of the site as a Potential Site of Importance (PSI), namely Sandhills Arm Canal PSI, which includes the small woodland area and

associated hedgerow along the track which divides the site. PSIs are sites that potentially contain areas of important semi-natural habitat but currently fall outside of the Local Site system. The PSI is described as "former canal arm, now infilled, and triangular block of woodland depicted on historic map (1st ed OS map 1880s)".

5.3.3 Wyrley and Essington Canal, forming the northern boundary of the site, is also subject to non-statutory designation as a Site of Local Importance for Nature Conservation (SLINC). The SLINC is designated for its generally good quality water conditions supporting a diverse aquatic flora.

5.3.4 A number of ecological designations are also located within the surrounds of the site, as shown on Plan 3586/BN1 contained at the end of this Chapter.

5.3.5 The nearest statutory designation is Shire Oak Park Local Nature Reserve (LNR) located 200m to the south of the site. This comprises an old sand and gravel quarry supporting lowland heathland, grassland, woodland and pond habitats.

5.3.6 A number of Sites of Special Scientific Interest (SSSIs) are located within the wider surrounds of the site, the nearest being Chasewater and the Southern Staffordshire Coalfield Heaths SSSI, located approximately 1250m to the north of the site. The SSSI is designated for its heath, fen and standing open water habitats, supporting two nationally scarce vascular plant species.

5.3.7 A number of European designations are also located within the wider surrounds of the site including Cannock Extension Canal Special Area of Conservation (SAC) 3.3km to the west of the site and Cannock Chase SAC 9.8km to the north of the site.

Habitats

5.3.8 A plan of habitat types and features within the site and wider survey area is provided at Plan 3586/BN2, contained at the end of this Chapter.

5.3.9 The site is dominated by arable farmland under cultivation for a range of crop types at the time of survey. This appears to be relatively intensively farmed with few arable weeds evident, and is largely open in nature with few hedgerows or other boundary features. Aside from a small area sown with a wild bird seed mixture (see below), the farmland also lacked areas of set aside or field margins at the time of survey. As such, the arable farmland is considered to provide limited opportunities for wildlife, and is of low ecological value at a local level.

5.3.10 Habitats of elevated value are generally limited to the margins of the site, and include:

- *Woodland* – a small woodland copse is present along the track which bisects the site (forming part of Sandhills Arm Canal PSI). This supports numerous semi-mature to mature trees, likely

planted in origin, with species including frequent Sycamore and occasional Beech, Oak and Pine. A moderate understorey of Holly and young Sycamore is present, although ground flora is very species poor, dominated by Ivy with occasional Common Nettle and Bramble. Based on its poor diversity of species and the lack of an established woodland flora, the woodland is not considered to be of high importance, although provides some value in association with the treelines and hedgerows as an area of wooded habitat within an otherwise open landscape.

- *Hedgerows and treelines* – several hedgerows and treelines are present at the boundaries of the site. These are species-poor, although are generally intact, offering value in terms of wildlife habitat and connectivity around the margins of the site. Occasional standard trees are present along the hedgerows, and established treelines occur in the southern part of the site, largely dominated by Pine and Sycamore.
- *Wild bird seed plot* – a small area in the south of the site was sown with a wild bird seed mixture at the time of survey, comprising a grass dominated sward with frequent pea and cabbage species. This area provides some interest as a foraging resource for farmland birds, although given its recently established nature, is not of any particular ecological value.

5.3.11 Further habitats of elevated value occur within the wider survey area, including established treelines with some notable mature trees, additional woodland areas, and an area of grass pasture with scattered mature trees. The offsite canal to the north of the site also provides a valuable wildlife corridor, with areas of emergent vegetation and associated tree and scrub habitats.

Fauna

5.3.12 The majority of the site is of limited value for faunal species, being dominated by arable farmland with few boundary habitats or areas of ground cover providing shelter or nesting opportunities. Nevertheless, some potential exists for farmland species, whilst boundary habitats provide potential opportunities for a wider range of faunal species. A discussion of potential opportunities for faunal species is given below:

- *Bats* – roosting opportunities are largely absent from the main part of the site, although a small number of trees within the woodland and along boundary treelines were noted to have developed features such as rot holes and splits which may offer bat roosting potential, whilst offsite farm buildings also offer potential roosting habitat. Boundary features (notably along the offsite canal) are also likely to provide habitat for foraging and commuting bats, including species such as Noctule, Common Pipistrelle, Soprano Pipistrelle and Whiskered Bat for which records were returned as part of the desktop study. The main part of the site however, being dominated by arable farmland, is unlikely to support any significant bat activity.
- *Badger* – A record of a Badger sett was returned from EcoRecord as part of the desktop study, located along the offsite canal to the north of the site. However, no evidence of this species was recorded within the site during the field survey.

- *Other mammals* – No evidence of any other protected or notable mammal species was recorded during the field survey and generally the site is considered to provide few opportunities for such species being dominated by arable farmland with few areas of wooded vegetation. Some potential occurs for species favouring open farmland such as the UK BAP species Brown Hare, although no sightings of this species were made during the field survey. The offsite canal provides potential habitat for riparian species including Water Vole (for which records were returned as part of the desktop study) and Otter.
- *Birds* – the site is likely to provide some interest for farmland bird species, with species recorded during the field survey including UK BAP and Red listed1 House Sparrow, Linnet and Starling. However, nesting habitats are largely limited to the boundaries of the site (aside from ground nesting species such as Skylark), whilst a lack of associated field margins or extensive areas of set aside mean that the site is unlikely to support any significant bird interest.
- *Reptiles* – the site is dominated by arable farmland with no substantial areas of rough vegetation, providing unsuitable habitat for reptile species.
- *Amphibians* – a pond is shown on OS mapping close to Home Farm, approximately 160m from the site boundary. However, this was noted to be dry at the time of survey, and is understood to be a temporary drainage feature (see Plan 3586/BN2). The next nearest waterbody is a large lake within a sand and gravel pit 380m to the south of the site. Given the separation from the site by residential housing and a main road, it is unlikely there would be any significant movement of amphibians between this waterbody and the site, particularly given the low suitability of terrestrial habitat within the site (being dominated by arable farmland). As such, this species group is not considered to form a constraint at the site.
- *Invertebrates* – the site is generally considered to be of low value for invertebrate species, being dominated by arable farmland. Wooded vegetation provides some elevated potential for this species group, although such habitats are generally limited to the site margins.

5.4 Constraints and Opportunities

5.4.1 The survey work undertaken has found the site to be largely unconstrained in respect of ecology. However, a number of minor constraints have been identified, including presence of nearby ecological designations, boundary habitats of elevated value, and potential opportunities for a number of protected and notable faunal species. A discussion of these potential constraints is given below in relation to any future proposed development, together with consideration of any required actions or mitigation. Potential opportunities for ecological enhancement in accordance with national and local policy are also identified.

[1] RSPB (2009) '*The population status of birds in the UK - Birds of Conservation Concern: 2009*'

Ecological Designations

5.4.2 With the exception of Sandhills Arm Canal PSI and Wyrley and Essington Canal SLINC, all ecological designations are well separated from the site and are unlikely to be subject to any direct effects as a result of the proposed development. Some potential exists for increases in recreational use, although nearby designations such as Shire Oak Park LNR are managed to accommodate recreational use, whilst there is unlikely to be any significant increase in recreational pressure at more distant designations.

5.4.3 In regard to European designations, the Habitats Regulations Assessment (HRA) for the Black Country Joint Core Strategy[2], identifies some uncertainty in regard to effects on Cannock Chase SAC as a result of air pollution and recreational pressure and disturbance, and Humber Estuary cSAC, SPA and Ramsar and Severn Estuary cSAC, SPA and Ramsar as a result of water quality and water supply. Preliminary work undertaken by Walsall Council as part of the HRA process to inform the emerging Site Allocations Document has narrowed these issues further, to Cannock Chase SAC only, although an agreed approach in regard to this designation is yet to be established. As such, it will be necessary for the approach in regard to Cannock Chase SAC to be confirmed at an appropriate stage, although given the separation between the site and this designation (beyond an 8km zone of influence) and available options for mitigation if required (e.g. provision of open space to offset increases in recreational pressure), it is considered likely that any potential issues can be addressed.

5.4.4 In regard to Sandhills Arm Canal PSI, this can readily be retained under the proposals together with an appropriate buffer of open space. Road access may be required across the hedgerow which forms the western part of the PSI, although subject to sensitive road design and new planting, this could be achieved with minimal loss of connectivity. Furthermore, long-term management of habitats within the PSI and provision of improved wildlife connectivity through new landscape planting and habitat creation would provide benefits under the proposals.

5.4.5 Wyrley and Essington Canal SLINC is separated from the site by a tow path and hedgerow, ensuring no direct disturbance or damage to bankside habitat. Under the proposals, there is an opportunity to create an area of open space alongside the canal, forming a buffer to the proposed development, whilst implementation of an appropriate drainage and pollution control strategy would avoid adverse effects as a result of surface water runoff. As such, subject to implementation of appropriate mitigation, it is considered that this designation can be fully safeguarded under the proposals.

[2] UE Associates (2010) *'Habitats Regulations Assessment of the Black Country Joint Core Strategy: Appropriate Assessment Report'*

Habitats

5.4.6 The site is dominated by arable farmland of low ecological value, not considered to form a constraint to the proposed development, whilst habitats of elevated value including hedgerows, treelines and woodland are mostly restricted to the site margins, allowing them to be readily retained under the proposals. Some minor losses of hedgerow habitat may be required to accommodate road access, although given the species-poor nature of the hedgerows at the site, this is unlikely to constitute a significant impact.

5.4.7 Under the proposals, there are significant opportunities to deliver ecological benefits through new habitat creation and enhancement of existing habitats. Such enhancements could include the following:

- As discussed above in relation to ecological designations, there is an opportunity to create an area of open space adjacent to the offsite canal. This could incorporate a range of wooded, grassland and wetland habitats (such as wet scrapes and ponds), forming additional habitat for species associated with the canal such as waterfowl and bats, and strengthening the function of the canal as a wildlife corridor;
- Native tree and shrub planting within areas of open space and around the perimeters of the built development, providing new wildlife habitat and contributing to the habitat linkage provided by existing woodlands and hedgerows.
- Provision of wildflower grassland margins along hedgerows and woodland edges;
- Specific measures to benefit farmland bird species such as wild bird cover plots and scrub creation;
- Enhancement of existing woodlands/hedgerows through sensitive management in accordance with ecological principles.

Fauna

5.4.8 The site generally provides few opportunities for wildlife, and is unlikely to be subject to any significant constraints in regard to protected or notable species. However, habitats at the site provide some potential for species including bats, Badger, Brown Hare and farmland birds, and as such these species will require consideration at an appropriate stage. Further detail is given below:

- *Bats* – boundary features such as hedgerows and the offsite canal provide potential habitat for foraging and commuting bats, and consideration will need to be given to treatment of these boundary habitats to ensure suitable habitat for bats is maintained, particularly in respect of lighting. It is recommended that this is supported by further survey work at the planning application stage. In addition, it is recommended that any trees proposed for removal are subject to survey to provide an assessment in regard to roosting activity. Following implementation of the habitat measures set out above, bats are likely to benefit under the proposals, whilst provision of bat

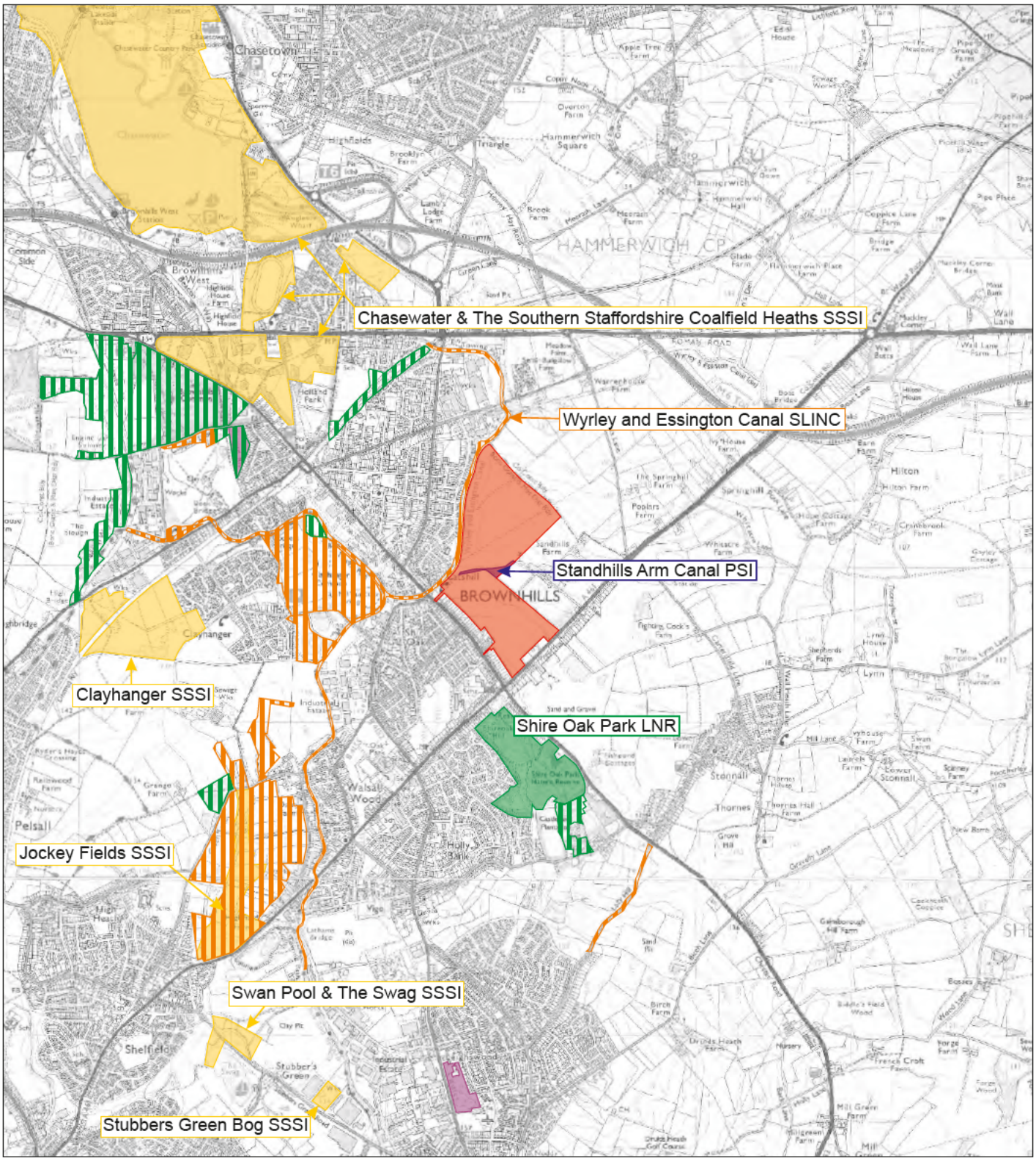
boxes on retained trees and within the fabric of new buildings would provide additional roosting opportunities for this species group.

- *Badger* – based on current evidence, no Badger setts would be affected under the proposals. However, it is recommended this is confirmed by further survey at the planning application stage.
- *Brown Hare* – it is recommended that searches for Brown Hare are undertaken as part of other survey work at the site at a planning application stage to determine presence/absence of this species. If present, consideration could be given to enhancements to the wider survey area to ensure suitable habitat is maintained for this species.
- *Birds* – it is recommended that further survey work is carried out at the planning application stage to provide a full assessment in relation to this species group. However, boundary habitats likely to be of value to bird species can be readily retained under the proposals, whilst new habitat creation can be provided within areas of open space to maintain and increase opportunities for bird species at the site. Measures such as provision of nest boxes on retained trees and within the fabric of new buildings would also provide enhancements for this species group.

5.4.9 The habitat measures set out above would also deliver benefits for other faunal species such as invertebrates, whilst increasing the likelihood of species such as reptiles and amphibians colonising the site.

5.5 Feasibility Assessment of the Proposed Development

5.5.1 Based on the results of the work undertaken, the majority of the site is considered to be unconstrained in terms of ecology. A number of minor potential constraints have been identified including Sandhills Arm Canal PSI and the presence of woodlands, hedgerows and treelines, along with the potential for protected and notable species including bats, Badger, Brown Hare and birds. However, these constraints are largely restricted to the margins of the site or established boundary features and as such it is considered that with a sensitively designed masterplan, together with the provision of appropriate avoidance and mitigation measures, the proposed development would be unlikely to result in significant effects in terms of ecology. Indeed, the proposed development provides the opportunity to create areas of new wildlife habitat within areas of open space, providing significant benefits for wildlife. As such, the proposed development is considered to be highly deliverable in ecological terms.



KEY:

- SITE LOCATION
- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- LOCAL NATURE RESERVE (LNR)
- ANCIENT & SEMI-NATURAL WOODLAND (ASW)
- SITE OF IMPORTANCE FOR NATURE CONSERVATION (SINC)
- SITE OF LOCAL IMPORTANCE FOR NATURE CONSERVATION (SLINC)
- POTENTIAL SITE OF IMPORTANCE (PSI)*

Information on non-statutory sites was returned for a 4x4km area around the site. Any such sites beyond this boundary may not be included on this plan.
*Full information relating to PSIs has only been provided for sites at the centre of the search area, so only PSIs relevant to the site or immediate surrounds are shown on the plan.

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LAND AT HOME FARM, SANDHILLS, WALSALL	PROJECT
ECOLOGICAL DESIGNATIONS	TITLE
3586/BN1	DRAWING NO.
	REV.
OCTOBER 2015	DATE

KEY:

- SITE BOUNDARY
- WIDER SURVEY AREA
- ARABLE
- SEMI-IMPROVED GRASSLAND
- WOODLAND
- DENSE SCRUB
- SCATTERED SCRUB
- TREELINE
- TREE
- HEDGEROW
- DRY POND BASIN
- DITCH
- BUILDING
- HARDSTANDING/BARE GROUND
- AMENITY GARDENS
- WILD BIRD SEED
- PHOTOGRAPH LOCATION

LAND AT HOME FARM, SANDHILLS, WALSALL

PROJECT

HABITATS, ECOLOGICAL FEATURES AND PHOTOGRAPHS

TITLE

3586/BN2 — DRAWING NO.

REV.

OCTOBER 2015 — DATE

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6. Archaeology and Cultural Heritage

6.1 Introduction

6.1.1 Pegasus Group has produced a heritage appraisal on behalf of Gallagher Estates, which provides a high-level assessment of potential heritage issues which could constrain the development at Home Farm, Sandhills.

6.1.2 This appraisal will identify designated heritage assets within and in the vicinity of the proposed site. Where appropriate, non-designated assets will be identified. It will provide an initial assessment of the significance which will also include assessing whether the proposed development site contributes towards the significance of the assets through setting. The appraisal will conclude with a statement of whether the heritage may present a key constraint to development.

Designated Assets

6.1.3 Within a 1km search area from the site boundary there are four Listed Buildings, all at grade II and one Scheduled Monument. These are shown on **Figure 6.1** below.

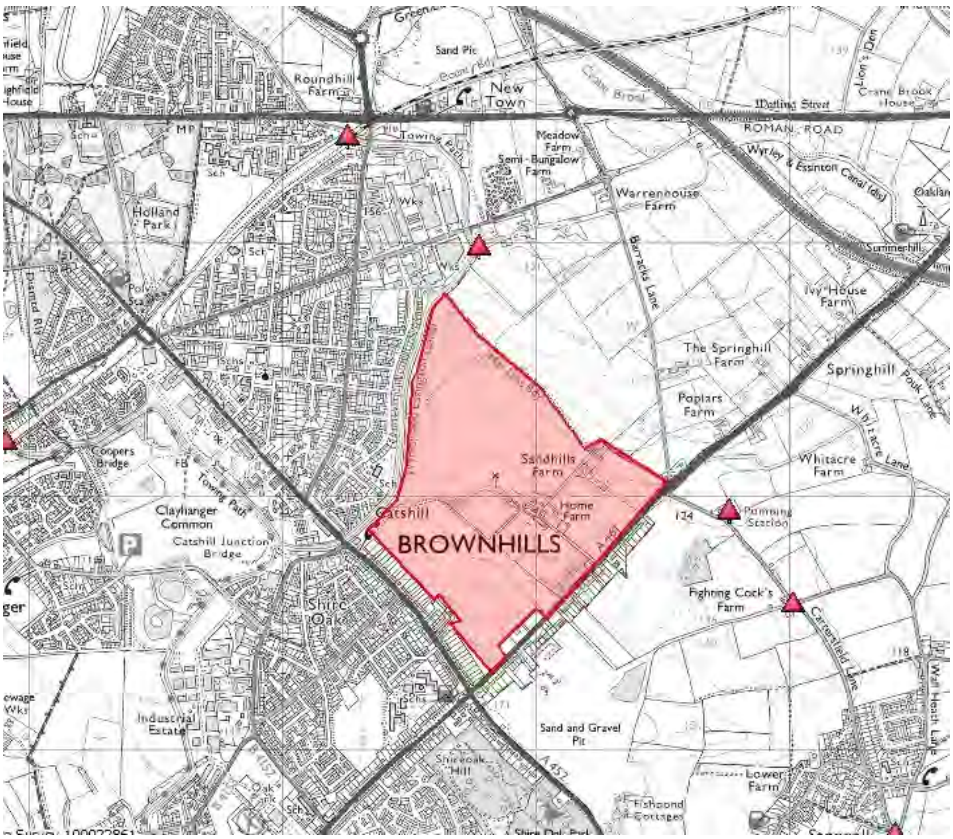


Figure 6.1 Location of listed buildings (scheduled monument located to the south)

6.1.4 The Listed Buildings are:

- The Wyrley and Essington Canal Anglesey Branch Railway Aqueduct – 1077180 – 0.7km north-northwest of the site boundary;
- Wyrley and Essington Canal Footbridge at Ogley Junction – 1087076 – 0.2km north of the site boundary;
- Sandhills Pumping Station – 1421472 – 0.25km east of site boundary; and
- Fighting Cocks Farmhouse – 1374262 – 0.6km southeast of the site boundary.

6.1.5 The Scheduled Monument is Hillfort known as The Castle Fort at Castlebank Plantation (1017244) located 1km south of the site boundary. The majority of this asset is located beyond the 1km boundary, extending south towards Castlehill Road.

6.1.6 There are no Registered Parks and Gardens, Registered Battlefields, Conservation Areas or World Heritage Sites within the site, study area or in close proximity.

6.1.7 The Wyrley and Essington Canal Anglesey Branch Railway Aqueduct is located to the north of the proposed site boundary. It is an aqueduct carrying the Anglesey branch of the Wyrley and Essington Canal over the South Staffordshire Railway. The Canal was originally built in 1797 widened and made navigable in 1850, with the railway built in 1849. This aqueduct was constructed in 1856. The aqueduct was constructed by local engineers, Lloyds, Foster and Co from Wednesbury.

6.1.8 The significance of this asset lies primarily in its architectural and historic value. It is evidence of the emergence of the modern transport networks of both canal and railway. It provides evidence of the engineering skill of the area which came to prominence in the 19th-century. It also provides evidence of the growth in prosperity of the area in the industrial period, aided by the construction of transportation networks.

6.1.9 The setting of this asset is provided by the railway and the canal, both of which provide the reason for the construction of the asset. The setting is also formed by the remainder of the canal, but with diminishing contributions to significance the greater the distance from the asset.

6.1.10 The site does not form part of the setting of the asset. Although located adjacent to a branch of the canal, there were numerous branches of the canal along its length and the site does not contribute to the significance and understanding of this asset. Therefore, development within this area would not result in any harm to the significance of this heritage asset.

6.1.11 The Wyrley and Essington canal Footbridge at Ogley Junction is located to the north of the proposed development. The footbridge carries the towpath of the Anglesey Branch over disused Ogley locks

section of the main canal which was closed in 1954. The bridge was constructed in 1829 and is of cast iron with brick abutments. It was constructed by Horsley Iron Works.

6.1.12 The significance of this asset lies in its historic and architectural value. It is constructed from cast iron, like a number of the other structures along the canal, lending it an aesthetic coherence and tying it into the contemporary industrial landscape. The historic value lies in the information it provides for the development of the canal system and the rise in industrial activity in this area in the 19th-century.

6.1.13 The setting of the asset is formed by the canal and the towpath. These provide the reason for the construction of the asset. There is some connection with the rest of the canal network however the contribution this makes to the significance of the asset diminishes the further away from the asset the canal reaches.

6.1.14 The site does not form part of the setting of the asset. Although another branch line of the canal does cut across the site, the site does not contribute towards the significance or understanding of the asset. If the canal arm crossing the site was still extant, the contribution would be greater, but it no longer is. Change within the site would create change within the immediate surrounds of the asset, but would not cause any harm.

6.1.15 The Sandhills Pumping Station is a water pumping station built in 1935 by F. J. Dixon for the South Staffordshire Waterworks Company and was constructed by Thomas Lowe and Sons Ltd. It was constructed in response to the growing population of South Staffordshire and the increased demand for a clean water supply. Sandhills Pumping Station was constructed in a stripped-classical style and pumps water via two boreholes. The original pumping engine has been replaced but the machinery is still in use today.

6.1.16 The significance of this asset lies in its architectural and historic value. It is a good quality design and example of an inter-war pumping station. Although the machinery is lost, the fabric of the building has seen little change and the purpose is still legible. It has historic value in the information it provides for the social history of the area.

6.1.17 The setting of this asset is its location. It was placed to take advantage of the water table and proximity to settlements. There is no connection with the site and the site does not form part of its setting. Change within the site resulting from the development will not cause any harm to the significance of the asset.

6.1.18 Fighting Cocks Farmhouse is a late 18th-century farmhouse, of typical L-shaped plan. The name of the farmhouse suggests it may have been the site of cock-fighting in the post-medieval periods.

6.1.19 The significance of this asset lies within its historic and architectural value. It is a good example of the local vernacular and provides evidence for the rise of the agrarian economy and sustaining of that economy in an area which was becoming increasingly industrial.

6.1.20 The setting of this asset is the agricultural surroundings of the asset. This contributes to the significance of the asset. The site does not form part of the setting of this asset. Any changes within the site will not harm the significance of the asset.

6.1.21 The Scheduled Monument of the hillfort known as The Castle Fort at Castlebank Plantation is located to the south of the proposed development. It consists of the earthwork remains of the univallate hillfort at Castlebank Plantation, on the crown of the hill, northwest of Castle Hill Road. The remains comprise a bank and outer ditch enclosing an oval area orientated southeast to northwest and is 170m long and 140m wide. The northwest corner of the hillfort a clay pit has been excavated which is now filled with water. This clay pit has removed all traces of the bank and ditch and ancillary works associated with the pit has also removed earthworks on the southwestern portion. There are also quarry pits located to the southeast outside the banks. It is likely that the entrance was located to the northeast with a break in the ditch and the slightly more gentle slope on the hillside beyond.

6.1.22 The significance of this asset lies in its archaeological and historic value. It provides evidence of the construction of hillforts and information into the design and evolution of defensive forts. It also has the potential to provide information on the material culture of the occupants. It has historic value as is it a rare example of a late Bronze Age, early Iron Age hillfort. It provides evidence of how the contemporary society utilised the landscape.

6.1.23 The setting of the asset is the landscape within which it sits. As a fort, it is defensive in nature and therefore the views from this asset add to the significance of the asset. The landscape around the fort would have supported the inhabitants of the fort and therefore this also contributes to the setting of the asset.

6.1.24 The site may fall within the setting of the fort, however the contribution it makes to the significance is very low. In addition, although the entrance of the fort may face towards the site, this view is now blocked by woodland and there is no appreciable visual relationship between the site and the fort. Change within the site is unlikely to cause harm to the significance of the scheduled monument.

Non-designated Assets

6.1.25 A search was undertaken of the Wolverhampton and Walsall Historic Environment Record (HER) via Heritage Gateway. This identified a small number of assets within the site and in close proximity. The assets are identified with their HER number.

6.1.26 The line of the Sandhills Arm of the Wyrley and Essington canal once bisected the site, crossing form the main canal running northeast towards Sandhills Farm and is identified as a non-designated asset (5893). It can be seen on the 1889 Ordnance Survey map and the line of this arm is shown until the late 20th-century mapping. The appearance of the canal arm on the 1st edition maps indicates that at

this time, Sandhills Farm was a small industrial complex, with the canal constructed to help transport the goods. The 1st edition Ordnance Survey map shows the canal arm terminating at Sandhills with a wharf area and possibly loading bay. This complex of industrial buildings and the canal wharf are also identified as a non-designated asset. The actual date of construction of this arm of the canal is unknown, however it was marked as out of use on the 1902 Ordnance Survey map. But this time, the entire northern portion of the site, north of the canal arm and two fields to the south of Sandhills (labelled here as The Sandhills) is shown as covered in a vast orchard.

6.1.27 Located within the site and visible on the 1st edition Ordnance Survey is Sandhills House. This is a non-designated heritage asset (5892). The present owner maintains that this house was built in the 17th century as a gamekeeper's lodge, however the current façade is 19th-century. A lodge building is identified at the junction of Lichfield road and the entrance drive to Sandhill house. This lodge (5891) was constructed in the late 19th-century, but first appears on the 1902 Ordnance Survey map.

6.1.28 Home Farm (5992) is also a non-designated heritage asset in its own right. It was constructed in the 19th-century with a walled garden and a mature belt of sycamore.

6.1.29 Located to the southeast of Sandhills, adjacent to Lichfield road is the site of Shire Oak House (5993). This is a mid-19th-century villa, set within its own grounds. It has undergone a series of name changes, first known as Bleak House, the Hill House and finally Shire Oak House by 1919. It is now a residential home. Adjacent to this is the site of a gravel pit (10217). It was still being worked in 1938 and was one of a number of small-scale gravel extraction pits located on the periphery of the site.

6.1.30 At the southwestern corner of the site is the Shire Oak Inn (10218). This is shown on the 1st edition Ordnance Survey map but labelled as Anchor Inn. It is also believed to have been the site of a brewery.

6.1.31 The series of historic Ordnance Survey maps shows the change in the landscape which has occurred over the late 19th and early 20th century. Within the site, the major changes have been the introduction of the Sandhills Arm of the Wyrley and Essington Canal which cut across the site and the later use of a large portion of the area as an orchard. The 1st edition Ordnance Survey map shows the site, with Sandhills House, Home Farm. The entrance to Sandhills House is shown leading northwest from Lichfield Road, with what appears to be a formal avenue of trees lining the driveway.

6.1.32 In the surrounding landscape, directly adjacent to the site boundary is the site of Bleak House. This building is shown within its own grounds. On the 1902 Ordnance Survey map, the name of the building has been changed to Hill House, and the 1919 Ordnance Survey map has this as Shire Oaks, with a large gravel pit located immediately west.

6.1.33 The 1st edition Ordnance Survey map shows the settlement of Cutshill to the northwest, separated from the site by the canal. The settlement is very linear, with little other development in the vicinity of the site. There are a number of collieries within the area, but it is likely that during the 19th -century, the site was used for agricultural purposes.

6.1.34 The 1902 Ordnance Survey map shows the orchard covering the majority of the site. It also shows the area of Sandhills Farm as enlarged, with a number of gravel pits and possible glasshouses. A lodge building has appeared at the entrance to the drive leading to Sandhills House, a non-designated asset in its own right. It also shows the development of Shire Oak to the southwest of the site with housing appearing along Chester Road.

6.1.35 There is little change within the site until the removal of the orchard in the mid-20th- century. The settlements within the surroundings of the site expand during the 20th- century. By the 1950s, the settlement of Shire Oak has expanded with housing added on the northeastern side of Chester Road and linking the settlement of Ogley Hay, forming one continuous strip of development. This expansion continues until the extents seen in the present day. The proposed development site remains unchanged.

Conclusions

6.1.36 This appraisal has shown that there are no major heritage constraints which could preclude the development of this site. There are a small number of designated assets within the vicinity of the site, but it has been demonstrated that the site does not contribute to their significance. Therefore, change within the site would cause no harm.

6.1.37 The appraisal has identified the potential for below ground archaeology to be located within the footprint. This consists primarily of early modern, industrial archaeology. In particular, it is likely that any intrusive works would identify the line of the Sandhills arm of the Wyrley and Essington Canal. In addition, any works in the vicinity of Sandhills House and Home Farm may uncover evidence of wharf and industrial canal structures.

6.1.38 The northern portion of the site was beneath a large-scale orchard for at least 50 years, with two fields to the south of Home Farm also included. It is possible that given the density of the planting and the age of the orchard, this would have removed archaeological deposits, or at the very least caused fairly substantial truncation. The site is likely to have been used for agricultural purposes throughout is recent history. There is little potential for earlier phases of archaeology within the site.

6.1.39 Therefore, archaeological investigation would be required for areas which have the potential to disturb the Sandhills arm of the canal, in addition to a Heritage Assessment to accompany any planning application for this site.

7. Drainage

7.1 Introduction

7.1.1 THDA Limited prepared this statement on the hydrology of the site and proposals for foul and surface water drainage. It is based on its visit to the site guided by the farmer, a study of sewerage records purchased from Severn Trent Water, and reviews of Internet data on the web sites of the Environment Agency and British Geological Survey.

7.1.2 A plan titled “Drainage Principles”, appended, shows contours within the site at five metre spacing, the area in which the British Geological Survey shows the presence of diamicton till superficial deposits, the location of the watercourse serving the site, and provisional principal surface water and sewage drainage routes proposed to serve the development.

7.2 Baseline Condition

7.2.1 British Geological Survey mapping shows that near surface bedrock beneath the site is a mixture of sandstone or conglomerate. Superficial deposits of diamicton till are present over a substantial area of the northern part of the site. In the vicinity of the only natural principal watercourse within the site (which is a headwater of the Crane Brook), there are superficial deposits of glaciofluvial sands and gravels.

7.2.2 A number of records for boreholes drilled within or close to the site are publicly available from British Geological Survey. These records show that locally the water table is at considerable depth and that deeper rocks mainly comprise various red sandstones.

7.2.3 Environment Agency mapping confirms that the bedrock beneath the site is a major aquifer, from which there is a public water supply abstraction located to the south east of the site. A small area of land in the south eastern corner of the site is classified as Source Protection Zone 2, and the remainder of the site is classified as Source Protection Zone 3. The type of development proposed is compatible with these Zones, but reasonable care will be needed with development drainage and control of pollution in general.

7.2.4 The farmer advised that the land in the northern part of the site has a sandy top soil and has occasional clay content and has field drains installed that are connected to the principle watercourse on the site to aid drainage. The area of land served by this drainage is similar to the area where diamicton till is indicated as present. The remainder of the land is very free draining, as witnessed during the site visit.

7.2.5 The principal watercourse is culverted under Lichfield Road with a 300 mm diameter pipe. The invert of the pipe is about 1.2 metres below ground level at the south east of the site.

7.2.6 Contours confirm that there is one valley line within the site to which all parts of the site fall with a minimum general gradient of about 1:68. The lower end of the valley contains the principal watercourse.

7.2.7 Environment Agency mapping also shows that whereas there are historic and authorised landfills beyond the site boundary, none is recorded within the site. The entire site is classified as Flood Zone 1. Reservoir flood routes have been removed from the Environment Agency website, so have not been checked, but are thought to be not relevant to the site.

7.2.8 As the entire site is Flood Zone 1, and it is not an area with special drainage problems, the development is proposed in the best flood risk location and is not subject to a Sequential Test.

7.2.9 No other flood risks to the development became apparent as a result of the site visit and desktop research.

7.2.10 Severn Trent Water serves the urbanised areas to the south, west and north of the site with foul and surface water sewerage. The foul sewers in Chester Road and Lichfield Road are 150mm and 225mm diameter. Based on 1,500 dwellings a foul flow of approximately 70 litres per second would be expected, so it is unlikely that the existing sewers would have spare capacity. Typically a 300mm diameter pipe would be needed to convey a flow of this magnitude.

7.2.11 Dwellings in Lichfield Road to the south of the site are served by a sewage pumping station. There is a 125 mm diameter rising main from this station which is located under the southern edge of the site.

7.3 Proposed Drainage Strategies

7.3.1 The outline proposal for disposing of sewage from the development is to provide a sewerage network discharging to a single purpose built on site pumping station located in the valley line. This will pump sewage through the site along a line similar to that shown on the Principles Plan to a Severn Trent 1050 mm diameter foul sewer in Lindon Road. In due course Severn Trent will need to be approached to agree this or any other point of connection, to ensure their networks have adequate capacity, and to agree the timescales for both development and potential network improvements.

7.3.2 There are many options for disposing of surface water from the development. The site benefits both from permeable strata and has access to a principal watercourse. As such much of the site can be drained directly to ground, or can be taken directly to the watercourse. Good land gradients and large areas of suitable located open space will allow suitably sized ponds to be located – these ponds can either be used to infiltrate of attenuate the flow prior to discharge to the water course.

7.3.3 Details of surface water drainage and disposal will be dependent mainly on the results of site investigation, planning decisions on what water features may be required as amenity, ensuring compliance with current and emerging SuDS guidance, and the advice as yet to be given by the Environment Agency about the balance between using infiltration to sustain the aquifer and discharge to watercourse to sustain riverine ecology.

7.3.4 Where ground conditions allow, typically roofs could be drained direct to soakaways. Typically roads would drain to the watercourse, thereby allowing implementation and maintenance of the longer treatment trains required. Swales and infiltration lagoons would be a viable and economic alternative.

7.4 Conclusion

7.4.1 This preliminary appraisal of water related environmental factors, including flood risk, groundwater/abstraction and drainage, fully supports the draft master plan for the development as drawn.

8. Ground Conditions

8.1 Introduction

8.1.1 This chapter considers the ground conditions of the Home Farm, Sandhills site, and in particular the Mineral Safeguarding Area which the site lies within, and why it is not considered suitable for mineral extraction.

8.2 Ground Conditions and Mineral Safeguarding Area

8.2.1 The site is located within a Mineral Safeguarding Area for Sand and Gravel (Policy MIN1 of the Black Country Joint Core Strategy). The purpose of a Minerals Safeguarding Area is to alert prospective developers to the existence of mineral resources, so that they can be taken into account at the earliest possible stage of the development project.

8.2.2 The policy explains that proposals for non-mineral development within Mineral Safeguarding Areas will not be permitted unless it can be demonstrated that the development will not result in sterilisation of the resources within these areas. All non-mineral development proposals will be encouraged to extract any viable mineral resources present in advance of construction where practicable, and where this would not have unacceptable impacts on neighbouring uses. The policy requires supporting information to be submitted to demonstrate that mineral resources will not be sterilised. The supporting information is required to demonstrate that:

- Mineral resources are either not present, are of no economic value or have already been extracted as a result of a previous site reclamation scheme or other development; or
- Extraction of minerals is not feasible, for example due to significant overburden or because mineral extraction would lead to or exacerbate ground instability; or
- Prior extraction of minerals would result in abnormal costs and/or delays which would jeopardise the viability of the development; or
- There is an overriding need for the development which outweighs the need to safeguard the mineral resources present; or
- Extraction of minerals would have unacceptable impacts on neighbouring uses, the amenity of local communities or other important environmental assets.

8.2.3 Mindful of the above, the site at Home Farm, Sandhills is not considered suitable for mineral extraction. It is a sensitive location given the uses that immediately border the site including, in particular, Millfield Primary School and residential properties along the Chester Road and Lichfield Road. The area surrounding the site is generally residential in nature, particularly to the west and south. In addition, the Wyrley and Essington Canal borders the site western boundary and mineral extraction could have a severe impact on ecology in and around the canal side.

8.2.4 In addition to the sensitive uses that surround the site that render the site unsuitable for mineral extraction, the Environment Agency have confirmed that the bedrock beneath the site is a major aquifer, from which there is a public water supply abstraction located to the south east of the site. A small area of land in the south-eastern corner of the site is classified as Source Protection Zone 2, and the remainder of the site is classified as Source Protection Zone 3. The residential development of this site is compatible with these Zones. Should the site however be used for mineral excavation, the aquifers below the site could be adversely affected by the backfilling operations. This has the potential to cause problems regarding pollution risk. The backfilling of the site following excavation would also lead to the current permeable site becoming impermeable thereby reducing aquifer recharge. Any excavation and subsequent backfilling of the site would have implications on the future use of the site. The current sand and gravel soils provide ideal ground conditions to build on, being both permeable and stable, foundation solutions would become an issue on filled ground which would affect costs and values and potentially lead to issues with the viability of the development of the site in the future.

8.2.5 In essence, this site is not suitable for mineral extraction. Whilst the site overlies substantial sand and gravel reserves, these minerals are not a scarce resource and given the extent of other land potentially available for mineral extraction in the area which does not have such constraints it is the case that the need for minerals from this site does not outweigh what are material planning objections to such a use in this location.

8.3 Summary

8.3.1 In light of the above it is concluded that this site is suitable for residential development in accordance with both local and national planning policy which promotes a presumption in favour of sustainable development. A proposal for an alternative use, such as mineral extraction, would not be. Notwithstanding this it is considered that the site is unsuitable for mineral extraction given its location relative to a number of sensitive receptors and the potential for pollution risk with regards the aquifers below the site. Sand and gravel reserves are not in short supply and given that there is the extent of land potentially available locally for mineral extraction without the use of this site, it is therefore the case that the loss of this site as a potential mineral location is not significant and does not outweigh the legitimate material planning benefits arising from the use of the site for residential development as suggested.

8.3.2 In conclusion, having undertaken the above initial work in relation to the site's ground conditions, it is considered that the site is suitable for residential development.

9. Agricultural Land

Agricultural Land Classification

9.1.1 This section presents the initial Agricultural Land Classification assessment which has been undertaken by Kernon Countryside Consultants Limited (KCC) to identify any major constraint to development on the site.

9.1.2 There are two principal agricultural considerations in the selection of development sites. These are:

- The effect on land and its quality; and
- The effect on farm businesses.

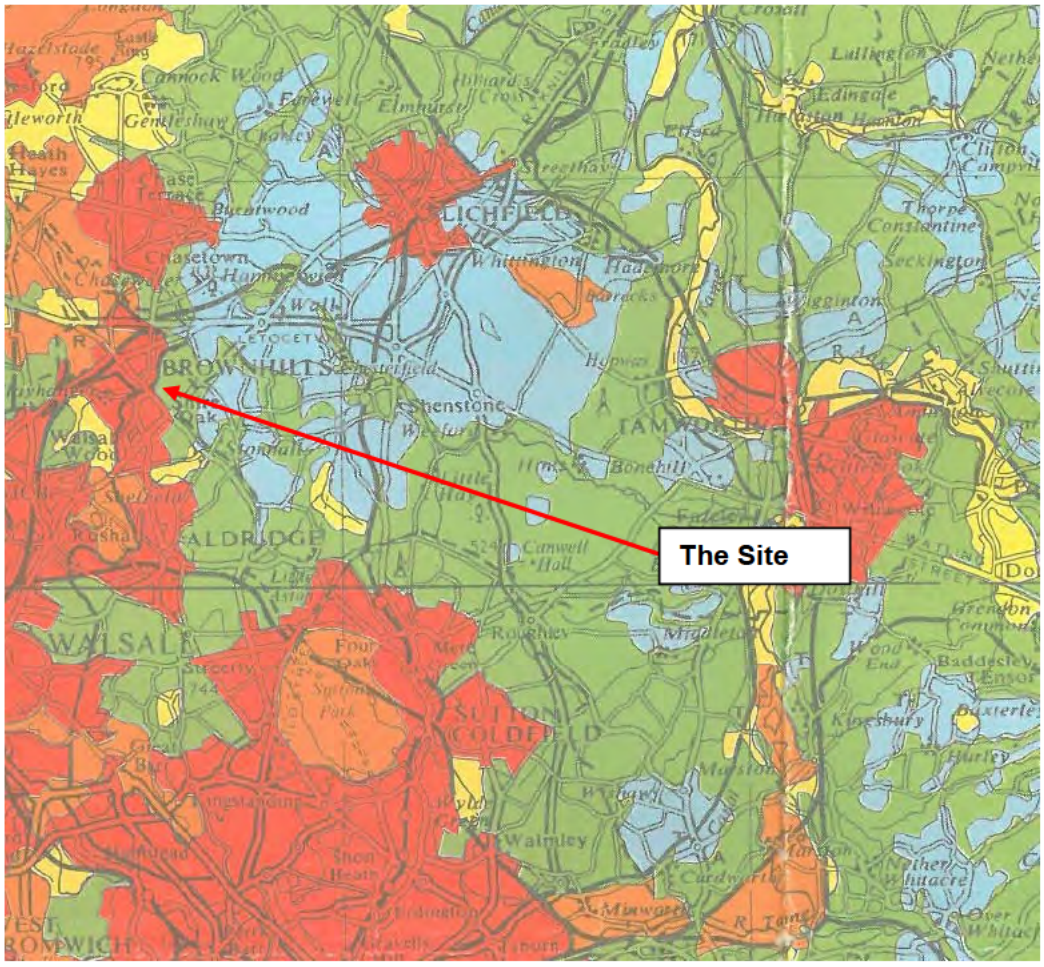
9.1.3 National Policy Guidance governing the non-agricultural development of agricultural land is set out in the National Planning Policy Framework (2012) (NPPF). Paragraph 112 of the NPPF notes that local planning authorities:

> ***"should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality."***

9.1.4 The best and most versatile agricultural land (BMV) is defined in Annex 2 of the NPPF as land of Grades 1, 2 and 3a in the Ministry of Agriculture, Forestry and Fisheries (MAFF) Agricultural Land Classification (ALC).

9.1.5 The Agricultural Land Classification Survey (ALC) system divides land into five grades according to the extent to which its inherent characteristics can be exploited for agricultural production. Grade 1 is described as being of excellent quality and Grade 5, at the other end of the scale, is described as being of very poor quality. ALC is based upon an assessment of limiting factors including soils, climate, and other physical limitations and the way in which these factors interact.

9.1.6 The provisional agricultural land classification map (MAFF 1983), as attached overleaf at **Figure 9.1**, shows undifferentiated Grade 3 land over the site. The map is provisional and was designed to be used for areas larger than about 80 hectares in extent and boundaries on this plan do not necessarily reflect the detailed situation. Since the map was constructed there has been changes to the classification. In particular Grade 3 has been subdivided into sub Grades 3a and 3b and the effects of the interaction between climate and soils are now more clearly stated which puts the land quality more clearly into the local context. The current Ministry of Agriculture Fisheries and Food ALC system was last revised in 1988.



Agricultural Land

Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5

Non-Agricultural Land

Land predominantly in urban use

Other land primarily in non-agricultural use

NORTH

FIGURE	**9.1**		
TITLE	**Extract from the Provisional ALC Plan (1983)**		
SITE	Home Farm, Sandhill		
CLIENT	Gallagher Estates		
NUMBER	**KCC2116/01 10/15/vmd**		
DATE	October 2015	SCALE	NTS

KERNON COUNTRYSIDE CONSULTANTS LIMITED
GREENACRES BARN, STOKE COMMON LANE, PURTON STOKE, SWINDON, WILTSHIRE, SN5 4LL
Tel 01793 771333

9.1.7 A review of www.MAGIC.gov.uk has identified that the site has been the subject of a detailed ALC survey which was carried out in February and March 1994, in accordance with the current MAFF Guidelines (1988). A copy of the survey is attached at **Appendix 9.1.** It should be noted that the conclusions of the report relate to the wider site area, of which only part of the land is proposed for development. The survey has identified the site to comprise mainly of sub Grade 3a land, with a swathe of sub Grade 3b land running through the middle of the site in an east – west direction. There are also areas of woodland and agricultural buildings within the site.

9.1.8 **Table 9.1** below sets out a breakdown of the grading across the site.

Table 9.1: ALC Grading across the Site

Grade	Description	Area (Ha)	Area (%)
3a	Good	62.1	74
3b	Moderate	15.7	19
Ag Buildings	Ag Buildings	2.2	2
Woodland	Woodland	1.7	2
Non-Ag	Non-Ag	1.9	2
TOTAL		**83.6**	**100**

* The table above relates to the grading across the wider site and, as set out on the indicative Masterplan, a smaller proportion of the site is proposed for development, which includes all of the 3b graded land identified.

9.1.9 The wider site area comprises predominately of sub Grade 3a and Grade 3.b land**.** The developable area proposed, however, includes a smaller proportion of Grade 3a land and all of the Grade 3b land. A review of land quality in and around Brownhills indicates that this site actually comprises some of the lower quality land in the locality. Surveys to both the north and west of the site identify areas of Grade 2 land, i.e. land of a higher quality than that found at Home Farm, as illustrated at **Appendix 9.2.** Please note that Appendix 9.2 relates to the wider site and not the development area, which is proposed on the Indicative Masterplan.

9.1.10 Although the site comprises of sub Grade 3a land with an area of sub Grade 3b, the presence of "best and most versatile land" around Brownhills is common place. Indeed, much of the surveyed land to the north and east of Brownhills has been identified as being of Grade 2 quality.

9.1.11 The NPPF requires that, where "significant" development of BMV land is demonstrated to be necessary, poorer quality land is used in preference. In this case, the development of sub Grade 3a land will represent the development of poorer quality land in the area with much of the land around Brownhills comprising of Grade 2 land.

Existing Farming Business

9.1.12 Gallagher Estates has engaged with the owner of the existing farming business on site. The owner of the farming business has confirmed that the business would not be severely affected by the development proposals which are being promoted through this Background Document. The owner currently farms around 2,000 acres, and it is notable that the promotional agreement to secure development on this site does not include the farm houses and associated buildings. Therefore, from a practical perspective the farming business will be able to continue to operate as normal after any residential development is secured and implemented. The promotional agreement covers approximately 200 acres, so even if all of this area was withdrawn from the current farming land base, this would only represent a 10% reduction in the farmed area, which would not be a significant change. As such, development proposals will not prejudice the existing farm business.

9.2 Summary

9.2.2 With regards to Agricultural Land Classification, the wider site has been found to comprise land of sub Grade 3a and Grade 3b. The site proposed for development includes a smaller proportion of Grade 3a land and all of the 3b land. Although sub Grade 3a is considered to be “best and most versatile agricultural land”, a review of land quality in and around Brownhills indicates that the site actually comprises some of the lower quality land in the locality, with surrounding areas being identified as being of Grade 2 quality. The development of this site would therefore represent use of poorer quality land in accordance with the NPPF, which states where significant development of BMV land is demonstrated to be necessary, poorer quality land is used in preference.

9.2.3 This Chapter has also demonstrated that development proposals will not prejudice the existing farm business, as outlined at paragraph 9.1.12.

9.2.4 In conclusion, having undertaken the above initial work in relation to the site’s agricultural land quality, it is considered that the site is suitable for residential development.

APPENDIX 9.1

MAFF ALC SURVEY REPORT

AGRICULTURAL LAND CLASSIFICATION
LAND AT HOME FARM, SANDHILLS

[redacted]
Resource Planning Team
ADAS Statutory Group
WOLVERHAMPTON

ADAS Ref: 25/RPT/0617
Job No: 8/94
MAFF Ref: EL46/10407

AGRICULTURAL LAND CLASSIFICATION REPORT FOR LAND AT HOME FARM, SANDHILLS

1. SUMMARY

1.1 The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:

Grade/Subgrade	ha	% of site
3a	64.0	76
3b	15.7	19
Other land		
Agricultural buildings	2.0	2
Non-Agricultural	1.9	2

1.2 The main limitation to the agricultural use of land in Subgrades 3a and 3b is topsoil stone content.

2. INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in February and March 1994. An Agricultural Land Classification survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

2.2 The 83.6 ha site is situated to the east of Brownhills and north west of the A461 road. The land in the north adjoins a canal, and the west boundary adjoins housing, while the north eastern boundary adjoins farmland.

2.3 The survey was requested by MAFF in connection with an ad-hoc development proposal for an industrial development.

2.4 At MAFF Land Use Planning Unit's request this was a detailed grid survey at 1:10000 with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.

2.5 At the time of the survey the site was mostly under cereals, brassicas with some fallow land.

3. CLIMATE

3.1 The following interpolated data are relevant for the site

Average Annual Rainfall (mm)	725
Accumulated Temperature above 0°C January to June (day °C)	1315

3.2 There is no overall climatic limitation on the site.

3.3 Other relevant data for classifying land include:

Field Capacity Days (days)	170
Moisture Deficit Wheat (mm)	91
Moisture Deficit Potatoes (mm)	77

4. SITE

4.1 Three site factors of gradient, micro relief and flooding are considered when classifying land.

4.2 These factors do not impose any limitations on the agricultural use of the land.

5. GEOLOGY AND SOILS

5.1 The solid geology of the area is shown as Soft Sandstone with Pebble Beds - British Geological Survey Sheet 154 1 inch.

5.2 The underlying geology influences the soils which have a sandy loam texture overlying loamy sand and sand.

6. AGRICULTURAL LAND CLASSIFICATION

6.1 Subgrade 3a - occupies 64.0 ha (76%) of the survey area.

6.1.1 The soil has a sandy loam texture over loamy sand and sand to depth and with up to 15% stones greater than 2cm size present.

6.1.2 The main limitation to the agricultural use of this land is topsoil stone content.

6.2 Subgrade 3b - occupies 15.7 ha (19%) of the survey area and is found in the northern and eastern parts of the site.

6.2.1 The soil typically has a sandy loam texture overlying loamy sand and sand to depth. The topsoil content with stones greater than 6cm in size is up to 10%.

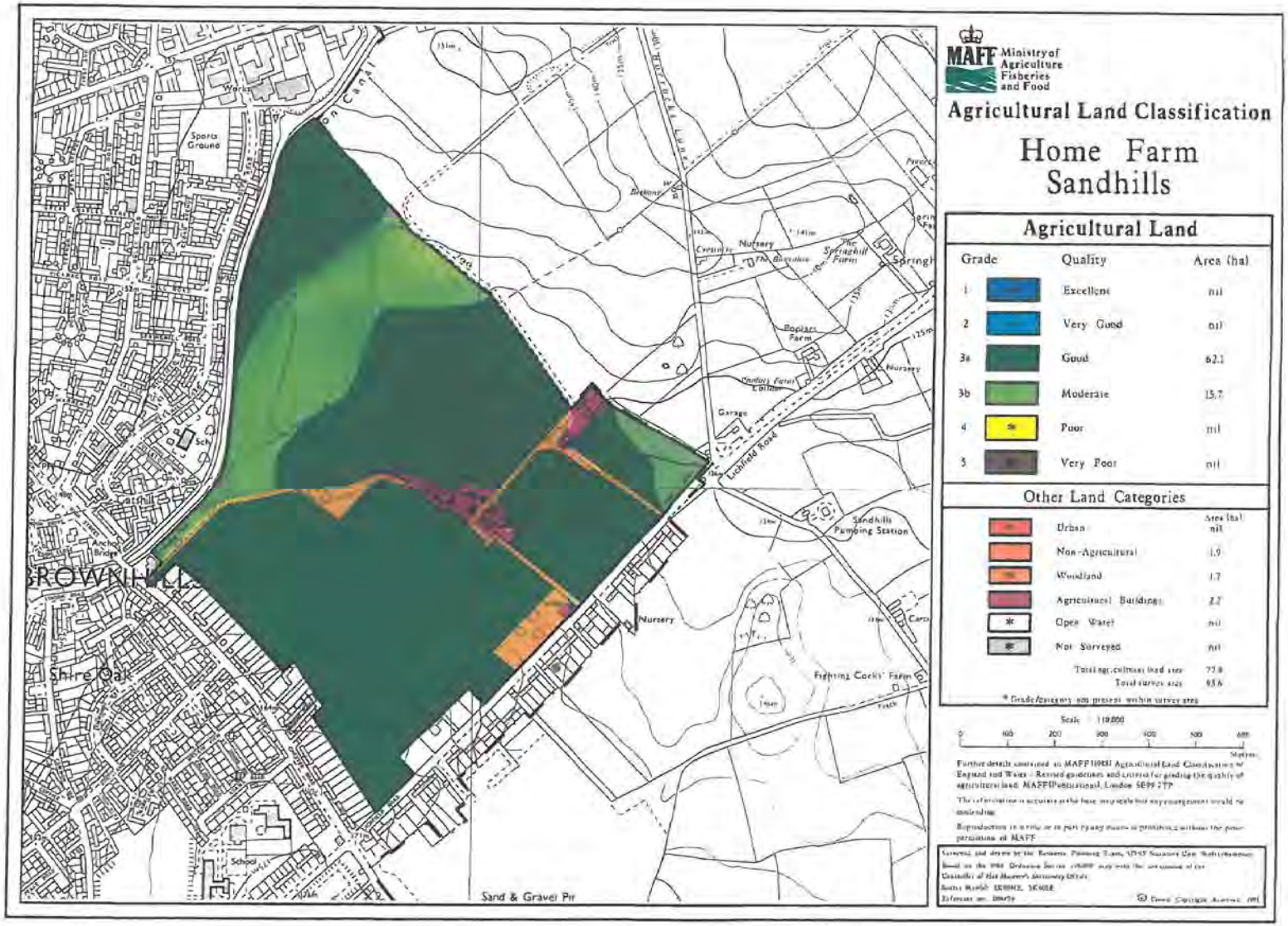
6.2.2 The main limitation to the agricultural use of this land is topsoil stone content.

6.3 Other land includes agricultural buildings and farm tracks.

6.4 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Areas in Hectares	% of Survey Area	% of Agricultural Land
3a	64.0	76	80
3b	15.7	19	20
Other land			
Agricultural buildings	2.0	2	-
Non-Agricultural	1.9	2	-
Totals	83.6	100.0	100.0

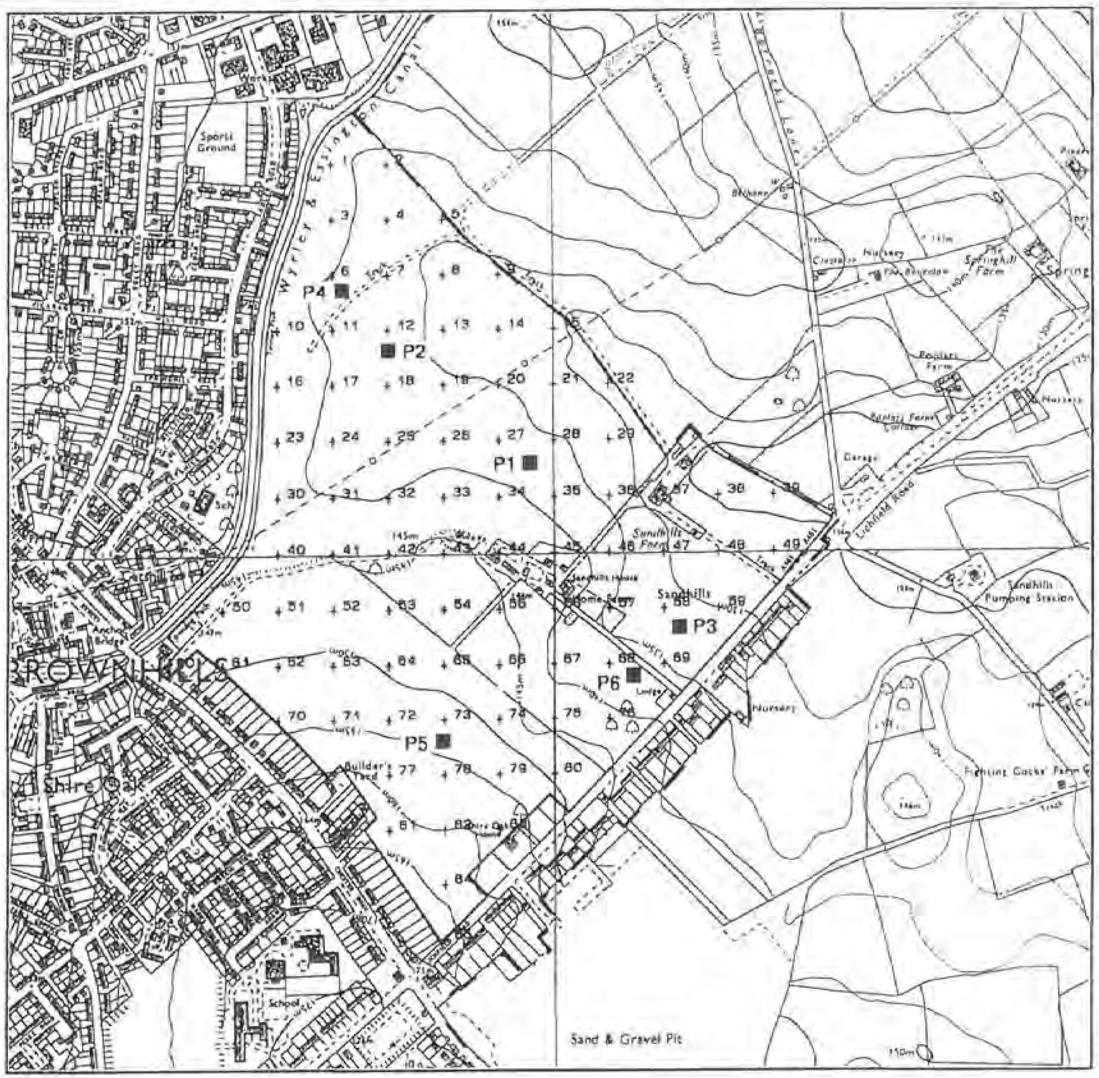
March 1994


MAFF Ministry of Agriculture Fisheries and Food
Agricultural Land Classification
Home Farm
Sandhills
Agricultural Land
Grade
Quality
Area (ha)
1 Excellent nil
2 Very Good nil
3a Good 62.1
3b Moderate 15.7
4 Poor nil
5 Very Poor nil
Other Land Categories
Area (ha)
Urban nil
Non-Agricultural 1.9
Woodland 1.7
Agricultural Buildings 2.2
Open Water nil
Not Surveyed nil
Total agricultural land area 77.8
Total survey area 83.6
* Grade/category not present within survey area
Scale 1:10,000
0 100 200 300 400 500 600
Metres
Sand & Gravel Pit
Sports Ground
Nursery
Springhill Farm
Lichfield Road
Sandhills Pumping Station
Fighting Cocks Farm
Shire Oak
School

MAFF Ministry of Agriculture Fisheries and Food

Agricultural Land Classification

Home Farm, Sandhills



AUGER BORINGS

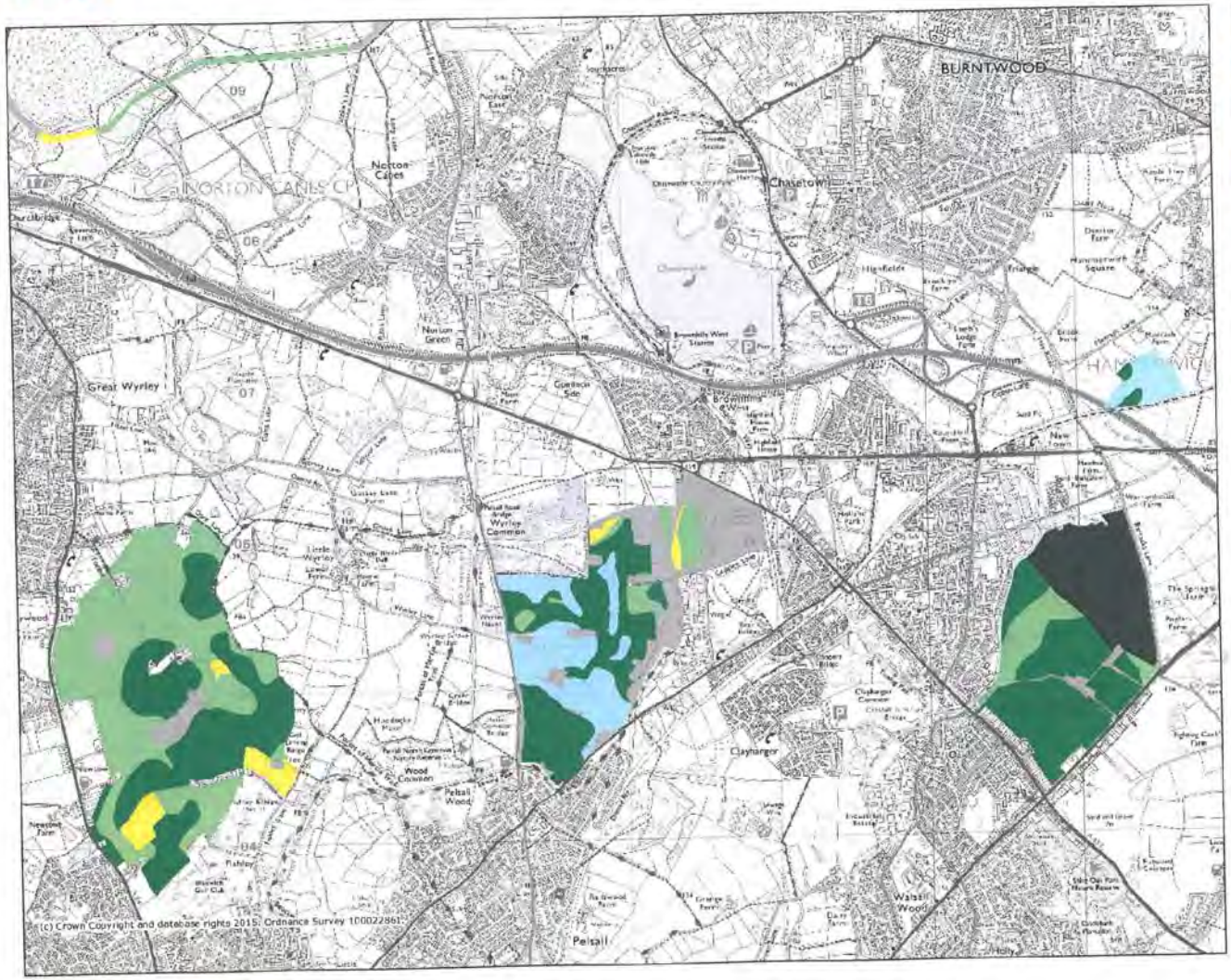
Soil Pits ■

APPENDIX 9.2

MAFF ALC SURVEY RESULTS FOR LAND AROUND BROWNHILLS

MAGIC

Magic Map



Legend

- Grade 1
- Grade 2
- Grade 3a
- Grade 3b
- Grade 4
- Grade 5
- Not Surveyed
- Other

Projection = OSGB36
xmin = 398800
ymin = 303500
xmax = 407100
ymax = 309100

10. Conclusions

10.1 Conclusion

10.1.1 This Technical Compendium relates to the site known as 'Home Farm, Sandhills, Walsall'. This document has been produced in response to the 'Issues and Options' consultation of the Black Country Core Strategy Review. Previous versions of this document have been prepared in response to other consultations in relation to the emerging Walsall Local Plan, and alterations have been made where applicable in light of any changes in contextual information.

10.1.2 Land at Home Farm, Sandhills is a highly sustainable and deliverable site and it is proposed that it should be allocated for residential development as part of the Black Country Core Strategy Review. The site provides an opportunity to deliver a significant amount of housing (circa 1,280) with associated infrastructure and open space, which will assist to meet the development requirements of Walsall and the wider Black Country and meet the housing needs of local people in a successful manner.

Suitable

10.1.3 The site comprises of Green Belt land on the edge of Brownhills. As demonstrated in Section 2, the site is a suitable candidate for release from the Green Belt from a landscape perspective. Brownhills is identified in the current Development Plan as a 'regeneration corridor' with a wider range of services and facilities in the nearby town centre, therefore the site is well placed to meet the future development needs of the area.

10.1.4 The town is also located in close proximity to the towns of Walsall, Sutton Coldfield and city of Lichfield.

10.1.5 As such, the site is considered to be a sustainable location for residential development and will contribute towards meeting the housing needs of Walsall and the wider Black Country.

Available

10.1.6 The land is under the control of Gallagher Estates, a Master Developer who is committed to putting the land to market as soon as planning permission has been obtained and relevant site wide conditions discharged. This model allows the potential for multiple house builders to deliver the site efficiently and effectively. Gallagher Estates is committed to obtaining planning permission for the land at the earliest opportunity following an appropriate allocation as part of the adopted Local Plan.

10.1.7 There are no legal ownership matters which would prevent the land from being delivered for residential use.

Achievable

10.1.8 The site is greenfield and as demonstrated throughout the technical chapters, there are no constraints to development that would pose the site to be unviable to deliver. Gallagher Estates has reviewed the economic viability of the site and proposals, including considering land values, market attractiveness and demand, sales rates and development costs and can confirm the development is economically viable to deliver.

10.1.9 In terms of the delivery programme, it is possible that if the site were to be allocated, completions could commence on site within 2 to 3 years of adoption - this would be subject to planning permission. It is anticipated that two to three developers would build at a rate that would see the site complete within 10 years or well within the plan period.

10.2 Summary

10.2.1 To summarise, the site will deliver a significant quantity of much needed housing in the medium to long term in a sustainable location. The proposed development is viable and can be delivered in a timely manner. The site is therefore achievable.

10.2.2 Gallagher Estates are committed to engaging and working with Walsall Council and the local community to design a high quality residential development.

10.2.3 The development will consider site specific constraints and opportunities, and will ensure that development proposals respect the existing character of the area.

10.2.4 In light of the information prepared, it is considered the site is suitable, available and achievable for development to meet emerging requirements for dwelling provision in both Walsall and indeed the needs of the wider Black Country.