



DESIGN STATEMENT

March 2019

Call for sites submission



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Aerial image of the site in context.



Introduction

Overview This statement has been prepared on behalf of Endurance Estates Land Promotion (EELP) and is presented to promote this site for a residential development of up to 26 units with associated landscaping and highway access.

The purpose of this statement is to demonstrate the design rationale, with particular emphasis on explaining the proposed use, scale, landscaping and overall appearance of the development proposal to ensure that the Greater Cambridge Planning Service has a proper understanding of the proposal.

This statement also summarises supporting technical analysis that has been commissioned, including highway access, noise, ecology and heritage.

Context —Village and Hall

The village of Orwell

The village of Orwell grew up around a water well situated upon a Roman road that led to the then settlement of Cambridge. In old English the village's name meant 'spring by a pointed hill'.

The village offers a number of facilities including shopping and entertainment: a historic Butcher's Shop, a village store and post office, the Chequers gastropub, the village hall and is host to a number of clubs, groups including a football club and a market for the surrounding area. Local employers include Accora and Volac.

St Andrew's Church is situated within the village on the High Street along with Orwell Methodist church on Town Green Road. Early schooling facilities are provided by Petersfield CofE Primary School.

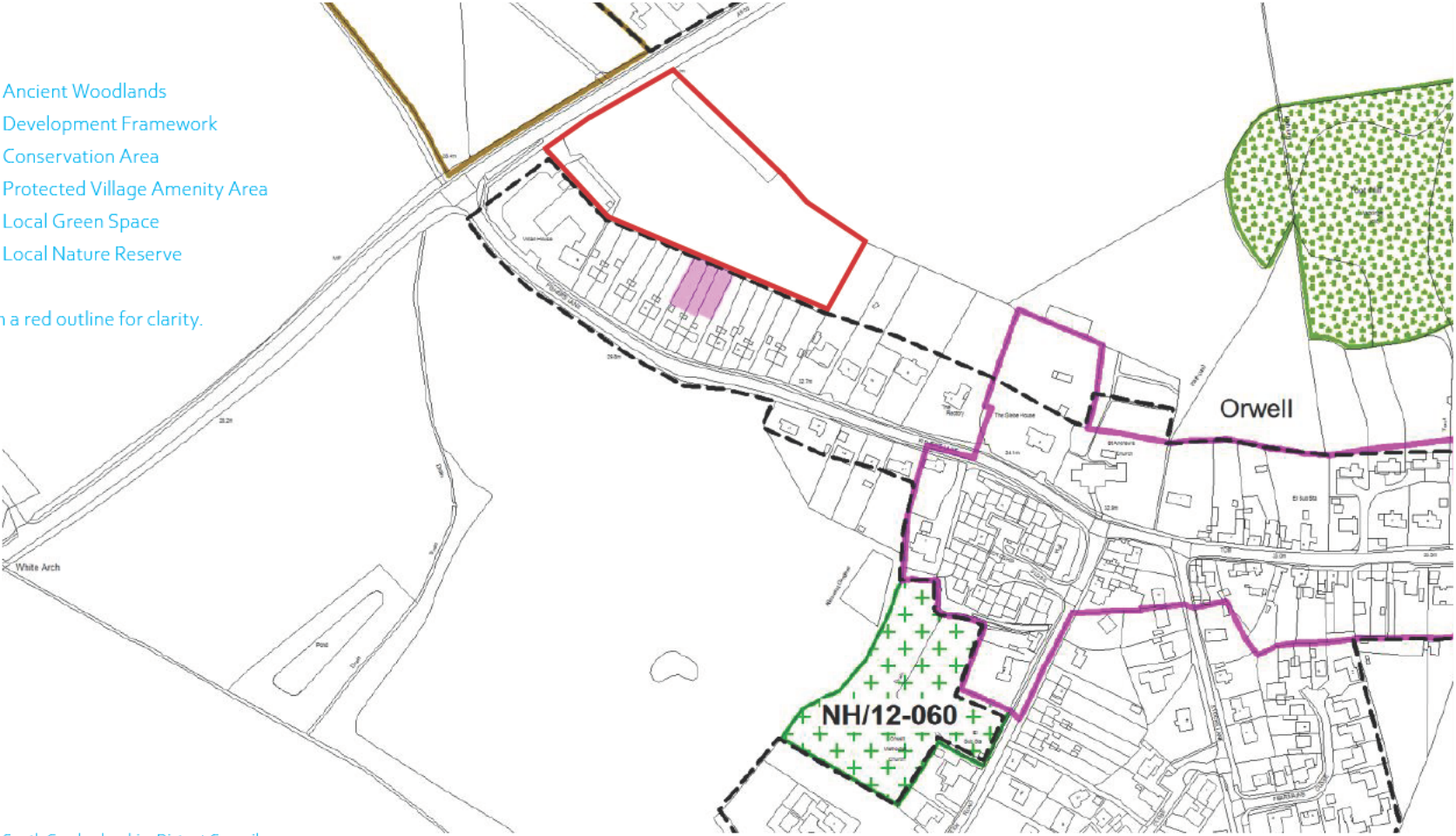
Transport connections

Orwell village is connected to the nearby city of Cambridge by the A603 (the Cambridge Road). There is also a regular bus service (no. 75) to and from Cambridge with several buses running per day.

South Cambridgeshire Local Plan Adopted Policies 2018 Map of Orwell

- KEY**
- Brown line Ancient Woodlands
 - Black dotted line Development Framework
 - Purple line Conservation Area
 - Purple shade Protected Village Amenity Area
 - Green crosses Local Green Space
 - Khaki pattern Local Nature Reserve

Our site is marked in a red outline for clarity.



Wimpole Hall

Nearby approximately 2.4km to the east of the site and the village of Orwell is the National Trust property of Wimpole Hall and Home Farm.

The current estate house at Wimpole was built in 1650 by the politician Thomas Cricheley — though a number notable architects have worked on the house since. Cricheley established the layout of the formal gardens and landscape in which the house sits, and forms the Wimpole estate comprising of approx. 1215 hectares of parkland and farmland. A particular feature is the grand formal avenue which sweeps away from the house to the south for 4 kilometers.



picture from wiki commons

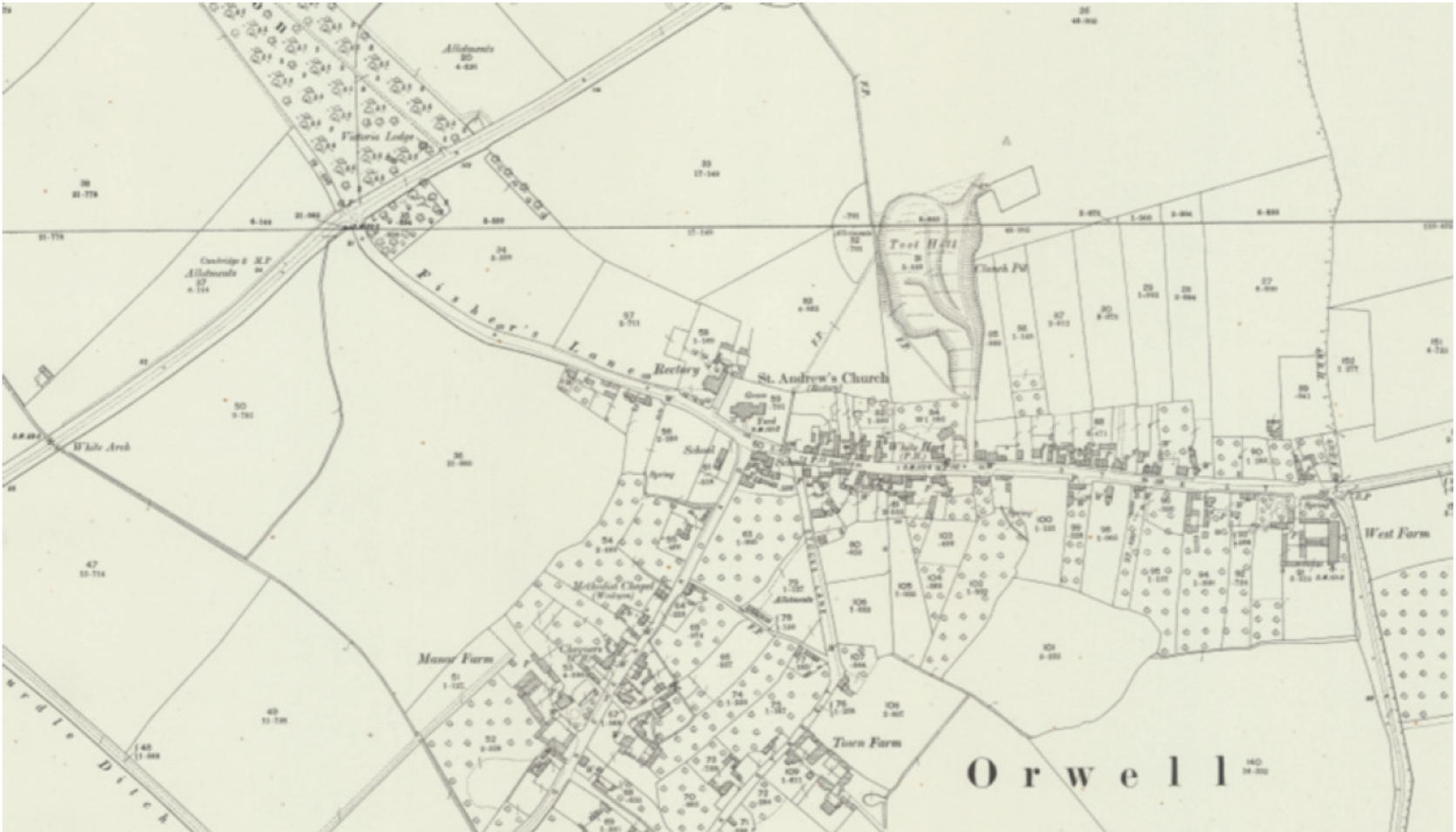
Wimpole landscape near Orwell

In contrast much of the remaining parkland is of a 'naturalistic' landscape form established by Capability Brown. The Wimpole landscape near to Orwell is that of farmland (Gadsby N T Farm) fringed with woodland to the north and east. This stretch of woodland ends at the A603 directly opposite to the proposed site. The topography of the location including the layout of fields and hedgerows would suggest that this tree belt once extended across the road to form the area now occupied by the east of Orwell, Fisher's Lane and our site.



picture rodney burton

1888-1913 map of Orwell



Context —The Site

Location The site is situated at the western edge of the village with access onto the Cambridge Road (A603) and therefore has direct road access into the west of Cambridge City with a journey time of approx 15 min. (13 km). There is also the option of an alternative on-road cycling route via Haslingfield of approx 48 min. (16 km).

Houses to the south of the site



The proposed site from A603 end



Site Location Plan



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Context —The Site

Neighbouring properties

To the south of the site are some residential houses dating from the 1940s or later. This includes a row of three attached council houses which have an area of communal grounds behind. There is also the Volac House development of offices. With car parking which houses the offices of Volac International Ltd a company who are 'world leaders in dairy nutrition'.

Parking near south west boundary

Immediately to the south west of the site behind Volac House is an area of more recent car parking development which forms an extension to the office site and provides a buffer between the office rear elevation and the edge of the site (see photo below).

Row of council houses (1940s or later)



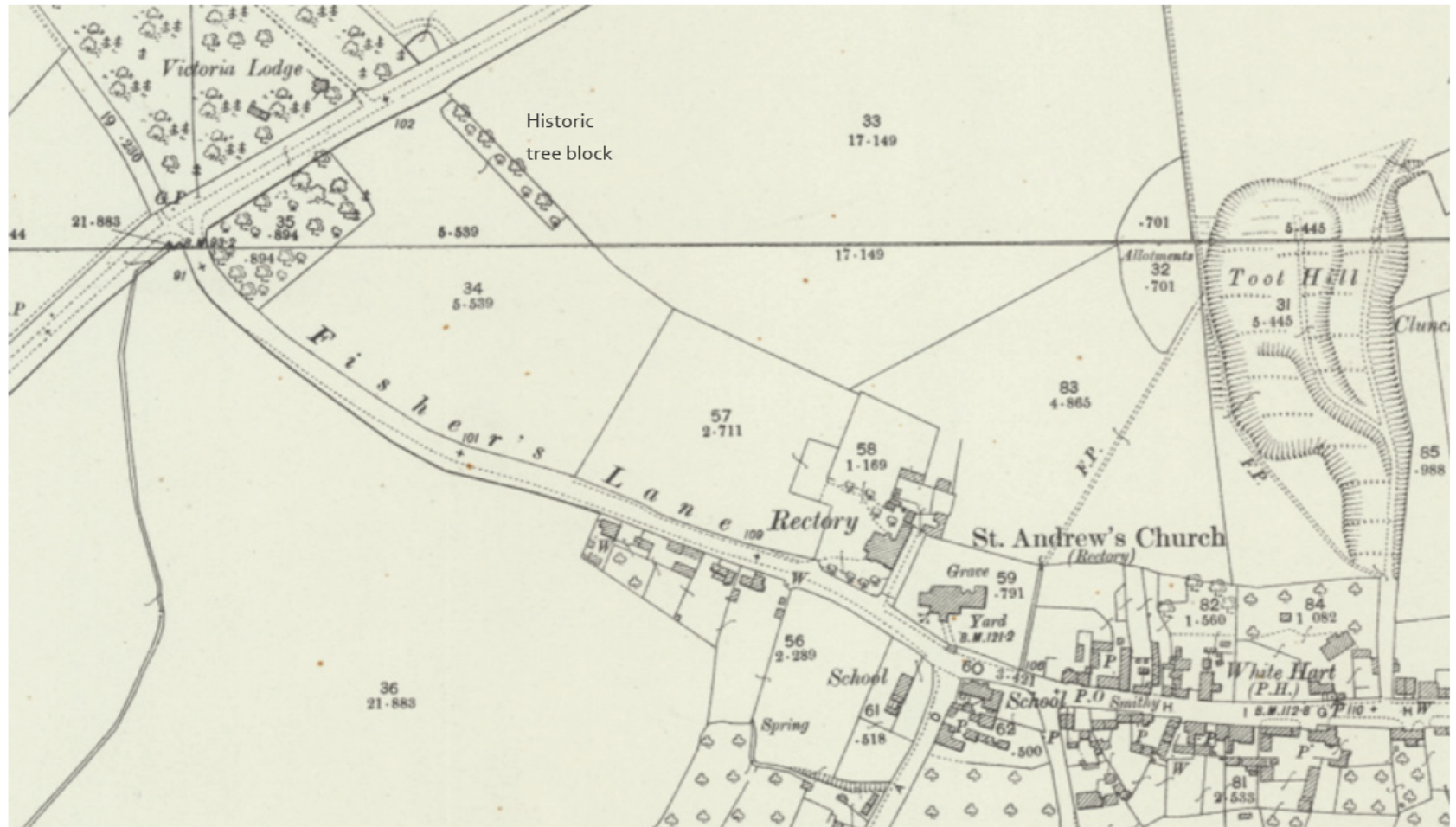
picture from Cambridgeshire Community Archive Network



Path to Wimpole Hall

to Cambridge City

1888-1913 map of Fisher's Lane



Context —The Site

Connection to Wimpole Hall

There is a marked path which leads from the woodland edge at the A603 opposite our site through the woodland belt heading northwest to Cobb's Wood before turning west to join the Clopton Way / Harcamlow Way which brings you to the church of St. Andrew and Wimpole Hall.

It is possible that this path once crossed the Cambridge Road (A603) and then continued through trees, across the proposed site to form a link between the then extent of the village of Orwell and Wimpole Hall.

Despite the hatch shown on the OS map opposite the interior of the site is now largely devoid of trees with a boundary perimeter of trees and hedges. There is a timber gated access from the site onto the A603.

We believe that despite this pathway route which connects the site with Wimpole Hall, any development on the site would be significantly removed from Wimpole Hall. The connection is via a long footpath which is tree lined and truncated by the A603 and Wimpole Hall is not visible from the site.

1888-1913 map showing pathway to Wimpole Hall



- KEY
- Blue line Historic footpath
 - Red line The proposed site

Key Characteristics — Buildings and Materials

Local properties The properties directly bordering the site are to the south along Fisher's Lane. These are in the main of two storeys plus a dual pitched roof with hipped gables.

The residential properties along the west end of Fisher's Lane date from the 1940s or later 20th century. They are uniform in design and appear to be of one long ribbon housing development set back from the road with driveways and narrow deep rear gardens. The buildings from this western end of the village are in the main later 20th century in origin.

To the north of the site is another stretch of ribbon development with residential dwellings along the side of the A603 (Hillside stretch). These are predominantly of single storey with dual pitched roofs but of mixed design and age.

Further into the village a greater number of Victorian buildings are evident however the buildings remain either single or two storey with dual pitched roofs. With the notable exception of St Andrew's Church which is predominantly circa 13-14th century with traces from the 12th century.

Local materials

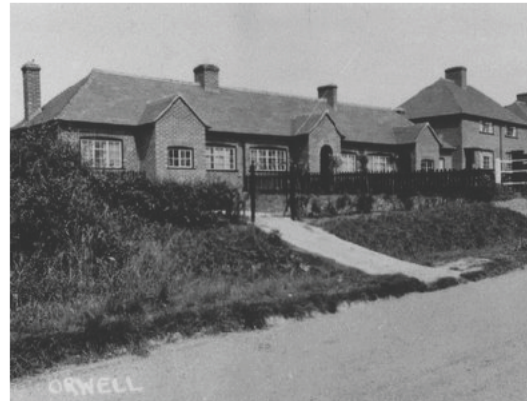
The pallet of materials used on buildings in the vicinity is mixed and includes the following list:

- light coloured render.
- multi red brickwork.
- cream/tan 'Cambridge' brick.
- brown and red roofing tiles.
- grey roofing slates.

There are a number of examples of thatched roofs within the village of Orwell, these are however predominantly towards the eastern end of the village along the High Street.

New and old Volac offices

Row of council houses
(1940s or later)



picture from Cambridgeshire Community Archive Network



Only thatched house on Fisher's Lane
(1900s)



picture from Cambridgeshire Community Archive Network

Constraints

Trees










Tree survey

A tree survey was undertaken by Haydens Arboricultural Consultants. The site is now largely devoid of trees with only a few small examples on the interior. Around the boundary there are a number of trees and some hedging.

The tree survey has identified that there are no category A trees on the site. The remaining specimens are divided in category B, C and U. All of the small trees within the interior of the site are category C and described as low quality.

Of the trees around the perimeter only two are category B – moderate quality with 20 year life expectancy. Whilst there are four trees which are low quality category U and should be removed.

There is an historic 'tree block' to the north corner of the site which has been depleted over the years and of which two of the largest remaining trees are now at the end of their life and need to be removed or replaced (see historic site map). As part of a scheme the re-instatement of this tree block could be a beneficial element.

LEGEND	
	Existing Tree/Hedge BS 5837:2012 Category B
	Existing Tree/Hedge BS 5837:2012 Category C
	Existing Tree/Hedge BS 5837:2012 Category U
	Line of Root Protection Area (RPA) - calculated following guidelines set in BS 5837:2012
	Additional feature which doesn't meet BS 5837:2012 categorisation but is included for reference
	Hawthorn Shrub which doesn't meet BS 5837:2012 categorisation but is included for reference
	Dead or Dying Tree
	Existing Shrub Bed
Scale 1:500	
0m 10m 20m 30m 40m	
<p>• Existing DH Based on Survey 04/09/2018 (see survey numbers 2020/1-14)</p> <p>• Existing Tree</p> <p>The position, condition, and dimensions of the trees are based on a site survey undertaken on 22/06/18</p> <p>"The original of this drawing was produced in colour - a monochrome copy should not be relied upon"</p>	
 <p>© HAYDENS 2018</p> <p>5 Moseleys Farm Business Centre Farnham All Saints, Bury St Edmunds Suffolk IP28 6JY www.treesurvey.co.uk</p> <p>Head Office 01204 880091 South West 01752 681423 Email: h@haydens.co.uk</p>	
<p>Endurance Estates Limited Constraints Plan</p> <p>Land to the Rear of 53 Fisher's Lane, Onwell, Roydon Cambridge, CB23 5DQ</p> <p>04/09/2018 DH CPN/8857-0-CP - Land rear of 53 Fisher's Lane, Onwell</p> <p>15020 (A2) SHD 8857-0-CP •</p>	

Tree survey plan and key.



Constraints

Noise

Environmental Noise

An initial noise risk assessment has been undertaken by MLM Consulting Engineers Ltd. The findings are that the majority of the site is within the low to medium risk category (ProPG Noise Risk Assessment).

At night-time there is a band of the site running parallel to the north west boundary which would sit within the medium to high category at night-time. Providing good acoustic design processes are adhered to, adverse noise impacts can be mitigated and the anticipated impact of noise on the scheme would be low.

To this end it is intended to set the development of dwellings back from the road and avoid the band of higher night-time noise levels. To aid with noise absorption it is intended to introduce a band of trees within the site. If required acoustic glazing units can also be provided, although this is not thought to be required at this stage.

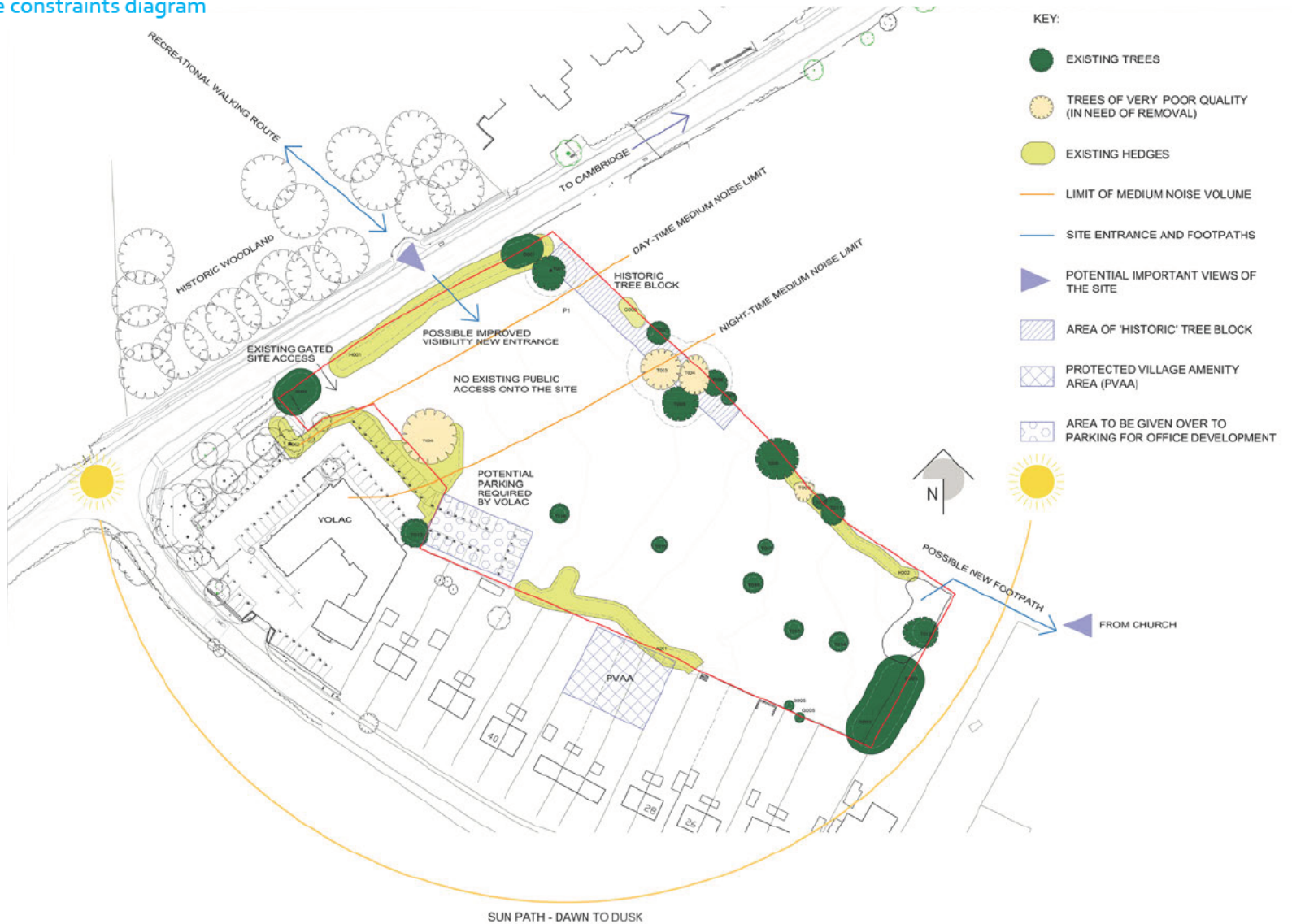
Day-time noise levels (MLM Consulting Engineers Ltd)



Night-time noise levels (MLM Consulting Engineers Ltd)



Site constraints diagram



Constraints

Access

Transport Access A transport access appraisal for the site has been carried out by TPA (transport planning assoc.). The findings stated that direct access from the A603 would be the preferred solution. The appraisal was carried out on the assumption of a development of *50 to 70 homes*. The findings were that an option combining *'options for access to the site with some relaxation to standards and which provide wider improvements to the highway are available'*. Further clarification from the TPA will be required on this point.

It was also concluded that a standalone scheme with an entrance in the northern part of the site along the A603 could be the most acceptable option.

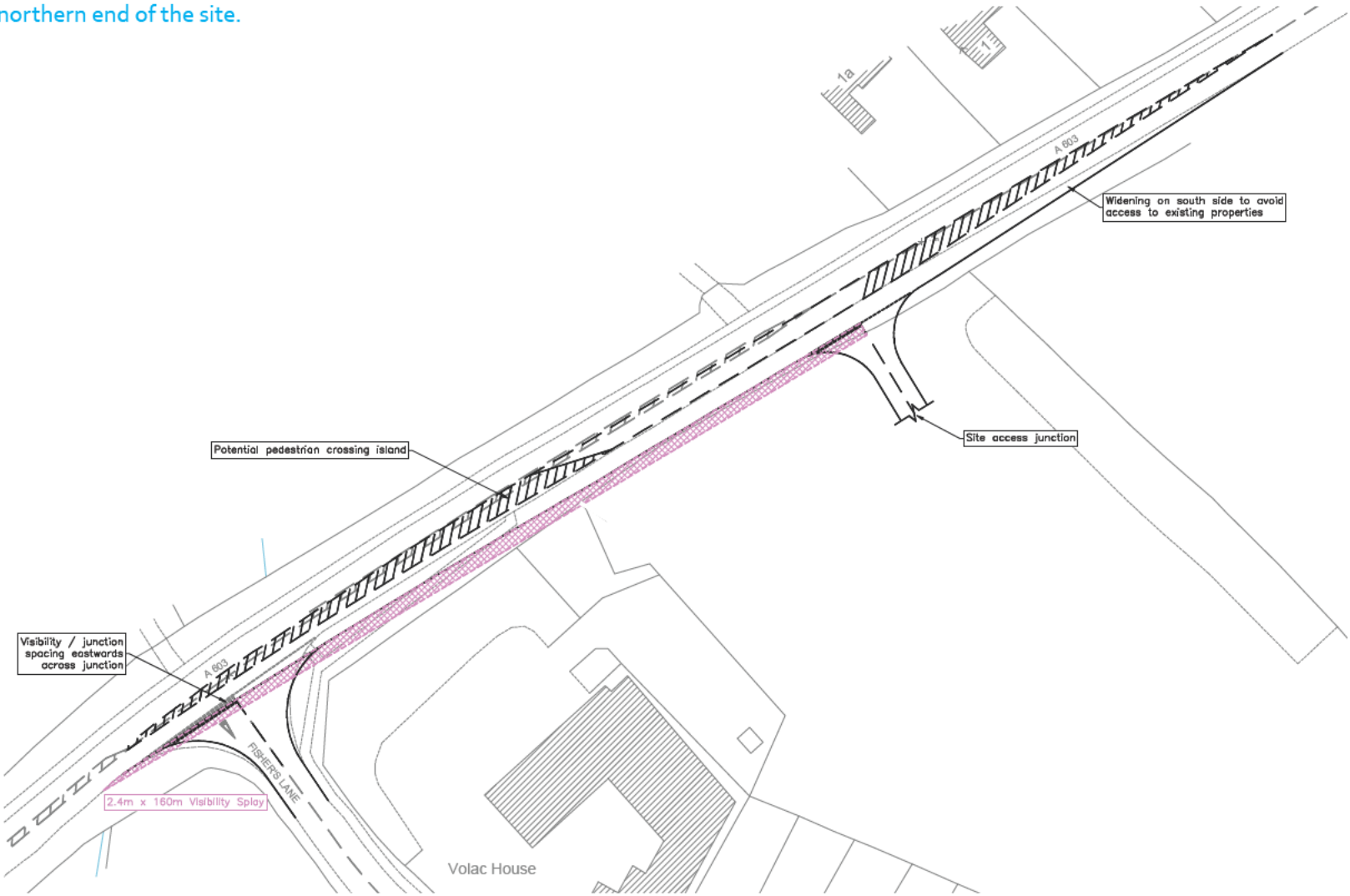
Following this appraisal the design of a junction with the A603 was presented to the council and was described as *'the junction is acceptable in principle subject to detail design'* (email from Victoria Keppey dated 09/11/17).

It is worth considering that the above appraisal was carried out for a new scheme of homes far in excess of the proposal layout of 26 homes, proposed here; so it can be imagined that the impact will be less.

It is believed that a new junction would include the following:

- a turning lane
- pedestrian refuge
- turning pocket for Fisher's Lane
- footpath link to Fishers Lane

Plan showing a possible new entrance to the northern end of the site.



Constraints

Ecology

Ecology survey A preliminary ecological appraisal has been carried out by Applied Ecology Ltd, with the following conclusions.

The site itself is dominated by rank grassland with limited value as environment for species and scrub. However this is suitable habitat for reptiles and a specific survey during reptile active period should be carried out.

The site is likely to support a small number of breeding birds, but is unlikely to support individual species or be of high conservation importance. Therefore a precautionary approach should be taken during site clearance and construction.

Two mature ash trees and a mature oak have been identified as of only *moderate* bat roost suitability.

At this stage it is our belief that there are no ecological issues which would preclude development of the site.

Ecology Recommendations

The following recommendations have been identified:

A seven-visit reptile survey should be completed during reptile active period (April-September) to confirm or presence.

Given the sites proximity to known barbastelle bat roosts it is recommended that a bat activity survey is carried out.

It is recommended that the existing boundary habitats, in particular hedgerows, are retained and protected to keep the likely impact upon breeding birds low. In this event a specific bird survey is not considered to be essential.

Cutting back or clearance of hedgerows, trees and scrubs should take place outside of bird breeding season.

The creation of new semi-natural habitat areas should be designed into the scheme. These could take the form of tree planting, boundary hedgerows and open water or wetland areas.

Ecology enhancement

Heritage

Heritage survey

A built heritage assessment has been carried out by CGMS Heritage, considering the likely impact on identified heritage assets. It was established that there is no *inter-visibility*, historic or functional associations between the site and nearby historic buildings or notable buildings within the conservation area of Orwell. With only a *slight* impact upon the wider setting of the Church of St Andrew.

Scale and density

The scheme proposed here was assessed to to be of a scale and density consistent with the pattern of residential development along the neighbouring Fisher's Lane and Cambridge Road (A603). The set back of development away from Cambridge Road was encouraged as eliminating any small impact upon Cambridge Road.

Design considerations

It was advised that appropriate colouring of facing materials and roof coverings, along with *proportionate* landscaping within the site and to the northern boundary would mitigate any impact upon the setting of heritage nearby assets.

Conclusion

The report undertaken concluded that there are no heritage reasons why the scheme should not be supported.

The Proposal

Usage and Quantity

Usage This site can accommodate a development of residential dwellings, including a new access road and significant soft landscaping. We would promote a range of house sizes and types including both attached and detached properties. This will provide a varied housing mix in line with SCDC policy.

Affordable housing The scheme will provide a good standard of modern houses suitable for both first-time buyers and families that will help to meet local needs and contribute to the national objective of creating mixed communities.

A 40% affordable housing provision would also be included, with the affordable housing mix determined by local needs subject to viability.

Quantity We propose the erection of up to 26 dwellings. The site area is 1.3 ha, therefore we are proposing an average density of 20 units per hectare. This density is in keeping with the existing densities found locally along Fisher's Lane and further along Cambridge Road.

Scale

The scale of the development has been designed to sit comfortably within the build environment of the surrounding area which is predominately between 1 and 2 storeys in height with additional pitched roofs.

The proposed dwellings would be a majority of two storey dwellings, juxtaposed with lower scale garages and subsidiary elements of a lower scale to provide a varied scale in the higher density areas. Chimneys could also be used to further enhance the roofscapes. There is also the option of providing accommodation within pitched roof areas, to create dwellings of a maximum 2.5 storeys.

It is intended to site the larger houses towards the north and west boundaries away from the existing residential houses to the south. Nearer to the southern boundary it is intended that the dwellings would be smaller in scale.

The Proposal

Considerate Facilities

Disabled access and facilities

Disabled access will be provided which is compliant with the current Part M building regulation standards requirements. This will include paved level access to principle entrance doors, with compliant ramped access where necessary. Internal ground floor door widths and corridor widths will be suitable for wheelchair access. Ground floor storeys will be provided with a wheelchair accessible WC. In addition light switches and electrical sockets will be located at a height suitable for disabled users.

Waste storage and recycling

A designated external paved area is to be provided to the rear or side of the proposed dwellings to accommodate at least 3 coloured 240L wheeled refuse containers—allocated to green waste, dry recyclables and residual waste. Gate widths are to be a minimum of 1m and steps will be avoided to facilitate ease of access and bin collection travel distances will be within the guidance set out in the RECAP Waste Management Design Guide.

Internally, kitchens are to be provided with integral separate waste containers to encourage recycling within the home.

Sustainability

The houses will be constructed from materials which have a proven longevity with low maintenance requirements. The internal layout of the houses will be conscious of the efficient use of sunlight with south facing living rooms where possible.

In accordance with current building regulations the houses will be fitted with a minimum of 75% energy efficient lighting. We would intend to exceed this efficiency target where possible. High efficiency gas boilers and / or renewables such as air source heat pumps will be used where possible.

The design and build will take into account high levels of material insulating properties and the limitation of thermal bridging and air leakage.

The use of a SUDS system incorporating permeable hard landscaping surfaces with drainage to an open balance pond will be used on a site-wide basis. The open pond also has the benefit of providing open water environment for wildlife and flora.

The Proposal

Layout

Site access and spine road

Following the site access appraisal outlined above which promotes a site access towards the northern extent of the site, we have followed this advice. Combined with the existing access to the historic pathway leading Wimpole Hall upon the otherside of the A603, we have decided to place the access opposite this pathway. This creates an extension of the existing pathway which may or may not have previously existed on the site. This access road then creates the spine road for the site around which a successful development of homes can be arranged.

Trees on the site

Further to the idea to extend the pathway across the site it was seen as desirable to also extend onto the site the historic tree belt that stretches away to the north to Wimpole Hall. This we believe will help to assimilate the proposed development into the surrounding landscape, whilst creating a comfortable shady environment for future homeowners and dwellers. A central informal avenue of trees along the access road was envisaged, along with a high level of tree planting around the site.

The re-instatement of the historic tree block shown at the northern end of the site has also been factored into the site layout. One advantage with the introduction of trees to the interior of the site is an increased absorption of noise from the surroundings, in particular the A603. We have in effect created two rough belts of trees running south to north across the site which help to break up blocks of housing and absorb noise.

The entrance area to the site, being nearest to the A603 has the highest noises level on the site. The furthest west area of this frontage also has the lowest ground levels on the site and is therefore the best location for a balance pond for surface water run off from the site and can be landscaped with trees and paths to create a shared recreational park area for use by residents. This results in the housing starting further back into the site where noise levels naturally drop off.

Entrance and balance pond

Concept plan



Proposed site plan



The Proposal

Amenity and Design

Amenity areas on site

With the formation of a gently winding access road to the site, we have tried to split up the site, firstly with trees and then with open shared amenity spaces. Central to the scheme is a green island park area with trees, seating and open space for use by residents.

This area creates a soft heart to the scheme and helps to break up the development, whilst providing a shared area for the new community to congregate. However each house maintains its own identity and space with private garden areas.

Scale and positioning

The design of the properties will be sympathetic with the surrounding development with the choice of roofing material colours to be synergistic with those nearby. It is intended to create a relevant contemporary interpretation of the *estate cottage* aesthetic amongst the tree planting.

Additional benefits

The sites location adjacent to the Volac offices provides the opportunity to incorporate cycle and car parking. This could alleviate parking issues on local road and promote sustainable travel options.

Conclusion

We consider that our proposal would assimilate itself into the existing village environment in terms of scale and pattern of development. It would make better use of this under used site whilst providing high quality, well designed family housing within a sustainable location with good transport links and help towards the counties new housing requirement.

We believe that we have shown here that the scheme would have minimal impact on the wider landscape character. That it would compliment the locality in terms of character, ecology, locality and be sympathetic to the history of the area.