

**PROPOSED DEVELOPMENT OF UP TO 300 DWELLINGS AND
ASSOCIATED DEVELOPMENT**

**Land off Norwich Road, Barham and Claydon
Planning Application Number 1856/17**

Review of Transport and Access Issues

Prepared on behalf of:

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1 INTRODUCTION

1.1 THaT Consultancy has been appointed by Barham Parish Council to review the transport and access issues associated with a proposal to construct up to 300 dwellings, and associated development, on land off Norwich Road in Barham. The proposals are the subject of an outline planning application, reference number 1856/17.

1.2 For the purposes of determining this planning application Mid Suffolk District Council is the local planning authority (LPA), Suffolk County Council is the local highway authority (LHA) and Highways England is the highway authority for the A14.

1.3 The full description of the proposed development as set out on the planning application form dated 5 May 2017 was:

“Outline planning application for phased development for the erection of up to 300 homes, including 8 self-build plots and affordable housing, together with associated access and spine and road including works to Church Lane, doctor’s surgery site, amenity space including an extension to the Church grounds, reserve site for Pre-school and Primary School and all other works and infrastructure (with all matters reserved except for access and spine road).”

1.4 By letter dated 22 December 2017 the applicant submitted a revised scheme. The description of the proposed development remained for up to 300 new homes but the reference to self-build plots was reduced from 8 to 7.

1.5 We note though that the description as now included on the LPA’s website is slightly different:

“Outline planning application (with all matters reserved except for access and spine road) for phased development for the erection of up to 270 dwellings and affordable housing, together with associated access and spine road including works to Church Lane, doctor’s surgery site, amenity space including an extension to the Church grounds, reserved site for Pre-School and Primary School and all other works and infrastructure (amended description).”

2 SITE VISIT

- 2.1 We inspected the site and local highway network on Wednesday, 13 June 2018 in the company of the Chair of Barham Parish Council. As well as inspecting the site and the highway network that is evaluated in the Applicants' Transport Assessment we also inspected the access routes to the existing primary and secondary schools at the end of the school day, and the route to Ipswich by way of Barham Church Lane and Henley.

3 DOCUMENTS REVIEWED

- 3.1 Our advice as set out in this statement is based upon the information available on the LPA's website as of Wednesday, 27 June 2018. At that time there were 146 documents available relating to Application 1856/17, of these approximately 35 were subject to detailed scrutiny as part of our investigations.

4 THE EMERGING LOCAL PLAN AND STRATEGIC HOUSING AND ECONOMIC LAND AVAILABILITY ASSESSMENT (SHELAA)

4.1 The LPA is preparing a Joint Local Plan with Babergh District Council. As part of that process the two Councils are undertaking a Strategic Housing & Economic Land Availability Assessment (SHELAA). A draft SHELAA report was published in August 2017.

4.2 The draft SHELAA has evaluated potential development sites against a range of criteria.

4.3 The application site is Site Reference Number SS 0076 and is described as “land to the north of Church Lane, Barham”. The proposed land use description is:

“Residential development, approx 300 dwellings. Land would also be reserved for relocate doctor surgery and provide a community building” (stet)

The suitability of the site is stated to be:

“Site is potentially suitable, but the following constraints have been identified which would require further investigation:

Highways-regarding access, footpaths and infrastructure required

Minerals-site lies within Minerals Safeguard Area”

4.4 The application site is only one of several potential residential sites around Barham and Claydon. We have attached as Figure 1 an extract from the SHELAA Consultation Map showing the potential residential development sites near Barham and Claydon. We understand that the “Growth, Highways & Infrastructure Directorate-Strategic Development” section of the County Council are aware of schemes in the locality that together total approximately 1900 dwellings.

5 STATUTORY CONSULTEES

5.1 The relevant statutory consultees with a particular responsibility for transport, traffic and highway matters are Suffolk County Council which is the LHA, and Highways England which is responsible for the motorway and trunk road network including the A14.

Highways England

5.2 Highways England's first consultation response is dated 26 June 2017 and they "*offer no objection*" and do not recommend any conditions.

5.3 Highways England's second consultation response is dated 10 May 2018. In this response they confirm that the changes to the proposed development will have no adverse impact on the strategic road network and therefore their previous response remains in place.

5.4 Having reviewed the relevant sections of the Transport Assessment we take no issue with Highways England's consultation responses and, indeed would have been surprised had they raised any concerns.

Suffolk County Council (the local highway authority)

5.5 The different transport/highway sections within Suffolk County Council have responded in respect of:

- highways development control
- public rights-of-way (PROW)
- travel plan

5.6 By letter dated 7 August 2017 the LHA responded to the first consultation. This response encompassed highway development control matters, travel plan and public rights-of-way matters.

5.7 As far as we are aware the only formal response from the LHA to the second consultation is a response from the Travel Plan Officer dated 15 May 2018 where they state they have "*no further comment to make for the time being*".

5.8 We are concerned by the LHA's consultation response dated 7 August 2017. In this response the LHA:

- sets out a series of 12 "comments";
- sets out a series of conditions that the LHA recommend should be included in any permission should the LPA be minded to grant planning permission;
- presents the Section 106 funding requirements that the LHA is seeking in respect of the Travel Plan
- presents the Section 106 funding requirements that the LHA seeking in respect of the PROW

5.9 We are particular concerned by the issues raised in the fifth, sixth and seventh bullet points under the "comments" section of the consultation return. For ease of reference we have reproduce these comments below:

- *"We have concerns regarding the number of trips created by the development as this would create a considerable amount of additional traffic within a rural village location. The increase in trips and traffic would present a detrimental impact to the road network and landscape character of the area.*
- *The proposed spine road that goes through the site and closure of Church Lane could encourage 'rat running' through the proposed layout of the spine road. Motorists travelling westbound could easily turn onto the first road on the left, left again to re-join Church Lane which would still attract motor vehicles to what will be a sustainable corridor to encourage walking and cycling. These 'rat running' vehicles could potentially conflict with the proposed bus diversion through the site as well.*
- *A safe walking route to the existing primary school (Claydon Primary School) will need to be assessed and identified in the Travel Plan, as the new Primary School is unlikely to be completed during the early phases of the development."*

-
- 5.10 It is clear from the information presented in the Transport Assessment that parts of the local highway network will be operating at, or over, capacity without the new development, and the situation is significantly worse when the additional development generated traffic is taken into account.
- 5.11 The applicants do not propose any mitigation measures in the Transport Assessment. Given the significant amount of new development in the locality our recommendation, as set out below, is that the local highway authority and local planning authority should identify the mitigation measures and any infrastructure requirements based on an assessment of the cumulative impacts and recover these costs from the developments concerned.
- 5.12 The potential risk associated with not following a coordinated approach is that each individual developer led application will seek to argue that their individual development does not precipitate the need for improvements. This is the argument being pursued in the current case where junctions are identified as being overcapacity, but the applicant tries to argue that their proposed development does not justify, or necessitate, implementing any mitigation measures.
- 5.13 We are surprised that in this case the LHA having said that there will be a “detrimental impact of the road network” as a result of the proposed development then, as far as we can tell, says nothing more on the matter.
- 5.14 In our opinion it is premature of the LHA to offer a no objection subject to conditions consultation response in the circumstances.
- 5.15 The next bullet point relates to ‘rat running’ through the proposed new road layout. Again, this is a fundamental issue that should be addressed before planning permission is granted.
- 5.16 The next bullet point relates to providing a safe walking route between the site and the existing primary school.
- 5.17 We are very concerned that the analysis of personal injury accidents as presented in the Transport Assessment only considered a corridor along Norwich Road and the western end of Barham Church Lane. Had the area of search been extended to include the residential area to the south of Barham Church Lane (i.e. the area through which people will walk, cycle, and drive between the proposed new development and the

existing primary school) than they would have been aware of a 'serious' personal injury accident that occurred on Thornhill Road in December 2015.

- 5.18 Having observed conditions on the local highway network at the end of the school day we have grave concerns about the suitability of introducing additional pedestrian, cycle or vehicle movements unless, and until, measures are implemented to improve the highway environment and reduce the risk to vulnerable road users.
- 5.19 It should also be noted that the existing Claydon Primary School will expand by 25%, starting in September 2019. Any "safer Routes to School" type assessment whether it be a freestanding exercise or incorporated into the proposed Travel Plan for the new development, should take this planned expansion into account.
- 5.20 We note that the proposed new link road involves creating a crossroads junction with Barham Church Lane and Thornhill Road. It seems very likely that such a new junction will serve to encourage residents of the new development to drive to drop-off/collect their children from Claydon primary school, perhaps on their way to/from work.

6 ISSUES AND RECOMMENDATIONS

Recommendation 1

- 6.1 We recommend that the Parish Council approaches the District Council and the County Council to see if they will facilitate a coordinated approach to address the transport capacity issues in the locality to ensure that the transport impacts arising from the numerous developments in the area are mitigated in a sustainable, safe and fair manner.
- 6.2 We have made this recommendation because the detailed junction modelling included in the Transport Assessment clearly highlights the fact that even without the proposed new development parts of the local highway network will be operating at or overcapacity. The additional traffic generated by the proposed development will significantly worsen these conditions.
- 6.3 We have some concerns as to the appropriateness of using July traffic count data as a basis for the detailed computer modelling. We would have expected July count data to be factored to represent the annual average weekday peak hour flows. Given the site's location we would expect the July data to be slightly below the annual average figure.
- 6.4 The junction capacity calculations presented in Appendices L, M, N, O and P of the transport assessment together with Chapter 8 in the text highlight the capacity problems on the network.
- 6.5 In the various tables in Chapter 8 the applicants summarise the output of the computer modelling of the various junctions under consideration using the observed 2016 traffic flows, and the forecast 2022 flows both with, and without, the proposed development.
- 6.6 It will be noted that the existing Norwich Road/Barham Church Lane junction operate satisfactorily at present (Table 8.1) and is forecast to do so in 2022 assuming that the development does not take place (Table 8.2).
- 6.7 If the development does take place, then the existing Norwich Road/Barham Church Lane junction would only cater for a very small number of vehicle movements given that most of the traffic will use the new link road through the proposed development

site. Table 8.8 shows that the proposed new site access junction is expected to operate satisfactorily in 2022.

- 6.8 Problems are, however, identified at the Station Road/Norwich Road/Ipswich Road junction and at the Ipswich Road/Claydon Church Lane junction.
- 6.9 At the Station Road/Norwich Road/Ipswich Road junction the maximum ratio of flow to capacity (RFC) is forecast to be 0.87 in 2022 without the development, increasing to 0.95 with the development. The associated “level of service” (LOS) falls to the lowest category (category F) with development.
- 6.10 At the Ipswich Road/Claydon Church Lane junction the maximum RFC without development is 1.04 and this increases to 1.29 with development. During the AM peak hour 2 of the 3 turning movements at the junction have a LOS of F (the lowest level of service).
- 6.11 The Junctions 9 User Guide (Issue D) is published by TRL and explains what RFC and LOS mean.

“RFC: ratio of flow to capacity. The RFC provides a basis for judging the acceptability of junction designs typically an RFC of less than 0.85 is considered to indicate satisfactory performance. This depends however on the context of the study and so the user’s own judgement is also required. Also known as V/C ratio (traffic volume/capacity ratio).”

“LOS: this is the un-signalised Level of Service. The Level of Service (Highway Capacity Manual (HCM 2000)) outputs show the un-signalised, and equivalent signalised, level of service values for the time segment, based on the average delay per arriving vehicle. The transportation LOS system uses the letters A through F, with the definitions below been typical:

A = free-flow

B = reasonably free-flow

C = stable flow

D = approaching and stable flow

E = unstable flow

F = forced or breakdown flow”

6.12 As a junction, or indeed a highway link, approaches capacity flows become unstable and relatively small changes in flow can precipitate large changes in queueing and delay. This is perhaps most dramatically demonstrated on motorways when traffic can slow down dramatically, or even come to a halt, for no obvious reason when the motorway is close to capacity.

Recommendation 2

6.13 We recommend that the development proposals be subject to a Stage 1 Road Safety Audit (Stage 1 RSA) before planning permission is granted.

6.14 We suggest that this RSA should cover the following:

- the new and modified sections of highway infrastructure proposed as part of the development scheme
- the sections of the existing highway network that are or will be operating close to, or above, capacity
- the access routes between the application site and the existing schools
- the access routes between the application site and the village centre
- the route along Barham Church Lane between the application site and the northern outskirts of Ipswich

6.15 The planning application seeks full planning approval for the proposed spine road and associated access works. The LHA has already identified some aspects of the design of the proposed spine road that require assessment/modification to ensure satisfactory visibility and highway safety.

6.16 It is not clear from the information that we have seen exactly what highway infrastructure would be granted planning permission should the application be approved. For example, is not clear what, if any, access arrangements are proposed to the school site. The latest site layout plan shows two access points directly from Norwich Road, but these have not been addressed in the Transport Assessment.

- 6.17 As explained above there are sections of the local highway network that will be operating at, or above, capacity. In the circumstances highway safety can be at risk. We consider it prudent for these risks to be identified and ameliorated as necessary.
- 6.18 We have a concern regarding vulnerable road users, particularly given that many of these users will be children and young people. The Transport Assessment has not given any detailed consideration to the highway safety issues associated with the access routes to/from the site.
- 6.19 We have a particular concern regarding the route to Ipswich along Barham Church Lane. This is a single track road, with limited width and forward visibility, and with relatively high vehicle speeds. The applicants do not propose to make any improvements to this route. We suspect that traffic flows along this route may well be higher in the future than those estimated by the applicants as congestion builds up in the village and drivers seek alternative routes. The situation is likely to be exacerbated by the proposed Ipswich garden suburb northern fringe scheme which may well add additional vehicle movements onto this route.

7 TRANSPORT POLICY

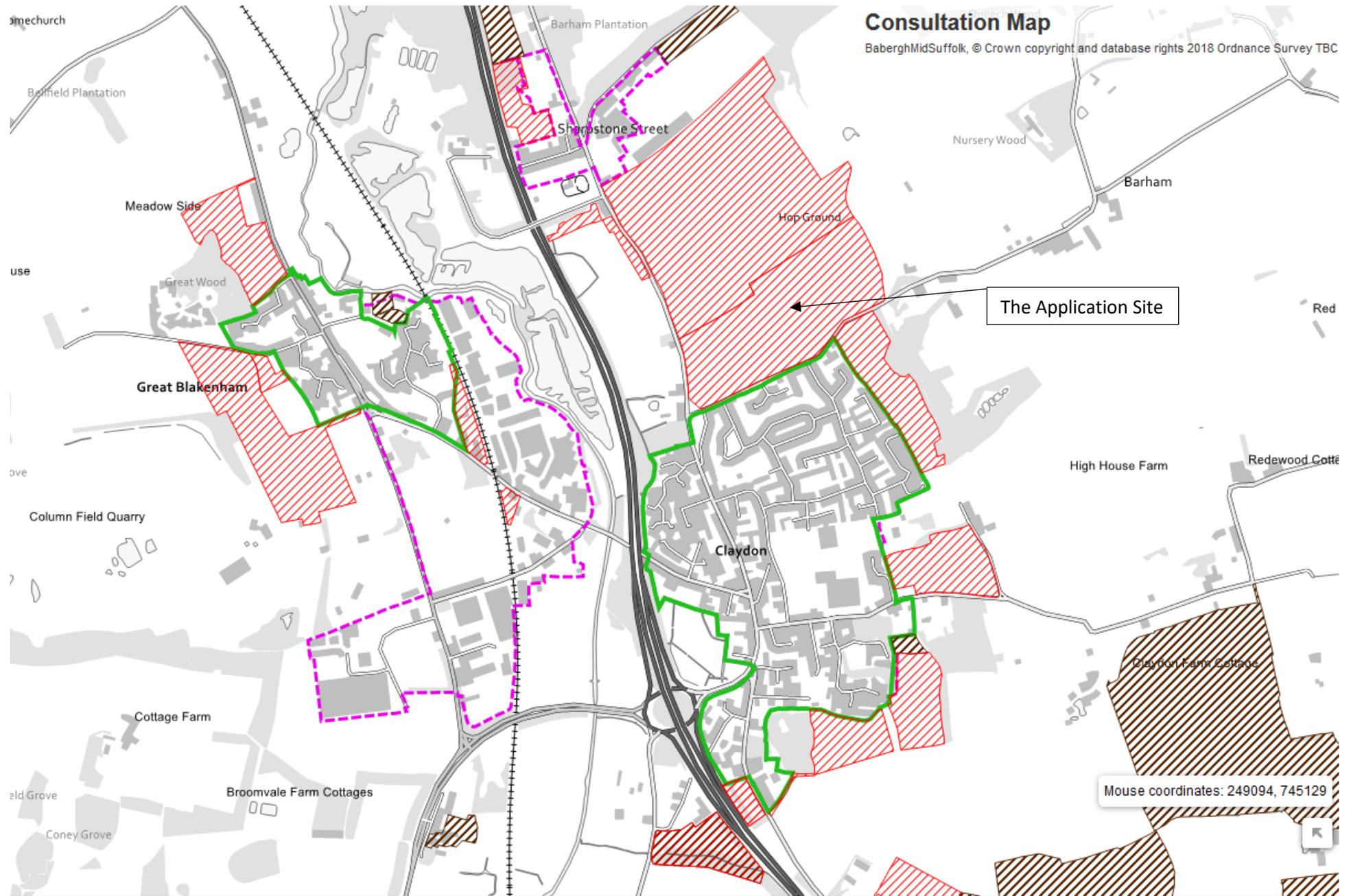
The National Planning Policy Framework (NPPF)

- 7.1 Part 4 of the National Planning Policy Framework (NPPF) is entitled “Promoting Sustainable Transport”.
- 7.2 Paragraph 29 explains that the transport system needs to be balanced in favour of sustainable transport modes giving people a real choice about how they travel.
- 7.3 Paragraph 32 explains that plans and decisions should take account of whether:
- “the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
 - safe and suitable access to the site can be achieved for all people; and
 - improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. **Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.**” (Our emphasis)
- 7.4 There is no formal definition of “severe”. It is left as a matter of judgement for the decision-maker in each case.
- 7.5 In this case there has been no attempt to quantify the cumulative impacts of the developments coming forward in the general locality. We suggest that this assessment should not be developer led but should form part of a coordinated approach by the local planning authority and the local highway authority.
- 7.6 The applicants have taken into account 3 committed developments in Great Blakenham. The information presented in the Transport Assessment submitted in support of this planning application clearly highlights problems which are going to be exacerbated by both the current development proposals and any other future schemes in the area.
- 7.7 It is clear that the development proposals cannot safely be accommodated within the existing capacity of the local highway network. Junctions that are forecast to be

operating close to or at capacity without any additional development traffic, will be operating at overcapacity levels once additional development generated traffic is considered.

- 7.8 The additional traffic on Norwich Road/Ipswich Road is likely to alter the character of the area by moving the balance away from a “place” function and towards a “movement” function.
- 7.9 We suggest that to avoid this proposed development, and other emerging developments having a “severe” transport impact then mitigation measures are required. These may take the form of minor highway capacity improvements supplemented by measures to promote sustainable modes of travel and enhance the street scene/environment of the village.

FIGURES



Potential Residential Sites (SHELAA 2017)

Figure 1