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14th November 2016

FAO Karen Pell-Coggins
Planning & New Communities
South Cambridgeshire District Council
South Cambridgeshire Hall
Cambourne Business Park
Cambourne
Cambridge,
CB23 6EA

Dear Karen

Planning Application S1411/16/OL - Development off Rampton Road Cottenham

Cottenham Parish Council, while noting the recent amendments, strongly recommends refusal of this proposal as unsustainable under the National Planning Policy Framework (**NPPF7**) because the economic benefits are significantly outweighed by the environmental and social disbenefits.

In particular, while there would be undoubted economic benefits in terms of affordable homes, which are required in Cottenham, and market homes, which are in short supply across South Cambridgeshire. However, this development is too large for Cottenham, especially following recent approval of the Endurance Estates application to build 50 homes and the recently-completed Racecourse View comprising 47 homes. Cottenham is classified - **ST/5** in the adopted Local Plan - as a minor rural centre, and its sustainability is being threatened by a series of larger developments, especially when the development does not fit well with existing infrastructure or infrastructure provision lags the housing development.

The adverse environmental and social impacts of this development, particularly the urbanisation of Rampton Road to cope with the increased traffic **NPPF 39**, medium and long-term flood risk from the necessarily large and complex SUDS **NPPF 100-103**, impact on landscape and traffic increase and loss of agricultural land **NPPF 112**, potential damage to a listed building **NPPF 129**, pressure to expand the largest primary school in Cambridgeshire, and the disruptive effect of such an expansion on Cottenham's Recreation Ground **NPPF 70** significantly outweigh the economic benefits of up to 200 homes (up to 40% "affordable") and up to 70 care places.

Other issues, such as the need for additional indoor community facilities, medical facilities, early years accommodation and open space for sport, and additional space for burials can be mitigated by appropriate developer contributions. Overall, the proposal does not "improve" as required by **NPPF9** and is not truly sustainable as required by **NPPF14**.

- a) **Housing supply** – the proposal offers up to 200 houses, up to 40% of which may be "affordable", plus up to 70 residential places with care on a site. However it is sufficiently far outside the established development framework as to risk creation of a relatively isolated

community on the edge of the established village. Being more than 1,200 metres from most village facilities, it will encourage use of unsustainable modes of transport. There appear to be other sites in Cottenham, especially within 800 metres of the village core in the north-east, that could be more sustainable and capable of better integration. In the representative Neighbourhood Plan survey, 69% disagreed with the suggestion of allowing large developments in Cottenham and, while 56% thought it important to improve the availability of affordable homes, 64% disagreed with the provision of 100 affordable homes within a 250 home development.

- b) **Traffic** – the latest proposal includes draconian highway re-engineering measures to mitigate the traffic congestion and queuing at the Oakington Road / Rampton Road junction and beyond; the base modelling seems to have under-estimated today's traffic and the likely additional traffic generated by the estate (see **Appendix 1**). Even then, the proposed mitigation measures are extremely disruptive and will change the amenity and character of this part of Rampton Road, especially adjacent to the Grade II listed John Moreton 1853 almshouses, which are likely to suffer vibration damage and houses against which the proposed speed cushions are located. Every 100 houses will, based on comparisons with Brenda Gautrey Way, a similar Cottenham estate, add 50 outbound and 26 inbound trips to the local road network which already has capacity issues leading to queues, especially at the Oakington road / Rampton Road roundabout and elsewhere in the local network. The extent of modelling and revision already demonstrates that this network is close to severe overload. This modelling needs to be revisited using real traffic flow measurements taken in neutral months avoiding discrepancies due to holidays and weather effects. In the representative Neighbourhood Plan survey, 95% thought it important not to let noise and pollution increase while 87% wanted to make it easier to move in, out and around the village.
- c) **Safety** As in the earlier rejected **S/1818/15/OL** application, we have grave misgivings about the suggested design of the access points onto Rampton Road. This is already a busy road feeding traffic to the rest of the village and beyond via very busy junctions and roundabouts, acknowledged in the application to operate at, or beyond, capacity if the development proceeds without mitigation. The increased intensity of traffic and lack of adequate segregation between pedestrians, cycles and vehicles, especially at these access points, will significantly increase accident risk. The anticipated queue lengths and the related exhaust pollution are unsustainable economically, environmentally and socially. This is contrary to adopted SCDC policy **TR/3** mitigating travel impact of the development control policies DPD. In the representative Neighbourhood Plan survey, 92% wanted Cottenham still to be described as safe in 15 years time.
- d) **Amenity** Viewed from Rampton Road, the effect of extending the ridge line of the built environment of Cottenham village into open countryside would result in demonstrable and significant harm to the landscape character. This conflicts with the requirements of **NPPF 59** and **61**, policies **DP/3** development criteria and **NE/4** landscape character areas of the development control policies DPD, the adopted District Design Guide SPD and policies **NH/2** Protecting and Enhancing Landscape Character of the emerging Local Plan. In the recent survey, conducted as part of the Neighbourhood Plan development, 90% of the 973 respondents considered that preserving the character of Cottenham is important. This very real perception of residents and the need for protection is supported by **NPPF 109** and **113**. In the representative Neighbourhood Plan survey, 94% thought it important to preserve the character of the village and its Conservation Area.

- e) **Flood risk** In conflict with **NPPF 100-103**, the proposed development will expose Cottenham to an existential flood threat. Cottenham Lode, with embankments already below the 1 in 100 year flood risk, takes surface water not only from Cottenham but also from many villages far to the south-east, including excess water from Northstowe in high level conditions. The claimed performance of the proposed surface water attenuation, after several design attempts, appears sufficient to bring run-off levels down to that which can safely be managed by the pumps of the Old West Internal Drainage Board. However, technical feasibility has not been demonstrated nor have long-term maintenance arrangements been suggested. A flood event in this scenario would have devastating consequences for Cottenham environmentally, economically and socially. The Old West Internal Drainage Board has clearly stated their acceptable run-off rate and their approval is necessary for the development to proceed. The time needed to achieve an acceptable design and long-term maintenance agreements could seriously compromise the scheme's delivery timescales, limiting the scheme's ability to contribute to closing the 5-year housing supply.
- f) **Affordability** The proposed development asserts as its main benefit, that up to 40% of the homes will be "affordable". The application includes (paragraph 2.4.3 of the Socio-economic Report) a DCLG specification (Land Registry and the Annual Survey of Hours & Earnings, ONS) of affordability as requiring a **mortgage 3.5x gross income** compared to the Cambridgeshire average of 7.7x. With local construction worker wages quoted at £28,000 gross, mortgage of £100,000 plus a 10% deposit implies that these houses will be sold at £120,000 each despite costing £95 per square foot to build. Should this development go ahead and to avoid claims of misrepresentation, we request a binding condition be placed on the affordability criterion, proportion, relative mortgage cost, and local residency credentials of potential purchasers or occupants of these affordable properties so they remain locally truly affordable "in perpetuity".

Many of the arguments stated by the promoter are in the context of national planning policy or the wider context of South Cambridgeshire based on the district's lack of 5-year housing land supply nullifying many of SCDC's development control policies. However sustainability requires a balance between economic, environmental and social benefits and disbenefits, not only at the South Cambridgeshire level but also in Cottenham. Location matters and this proposal is for Cottenham and, in that context, is not sustainable economically, environmentally or socially.

1. Cottenham is the wrong place for this development
2. Rampton Road is the wrong place for this development
3. The scale of the development is wrong for Cottenham
4. The promised affordable homes are unlikely to be affordable in Cottenham

1 Cottenham is the wrong place for this development

The proposal offers economic benefits in terms of affordable homes, which are required in Cottenham, and market homes, which are in short supply across South Cambridgeshire. However, this development is too large for Cottenham, especially following recent approval of the Endurance Estates application to build 50 homes and the recently-completed Racecourse View comprising 47 homes. Cottenham is classified - **ST/5** in the adopted Local Plan - as a minor rural centre, and its sustainability is being threatened by a series of larger developments, especially when the development does not fit well with existing infrastructure or infrastructure provision lags the housing development.

The adverse environmental and social impacts of this development, particularly the urbanisation of Rampton Road to cope with the increased traffic **NPPF 39**, medium and long-term flood risk from the necessarily large and complex SUDS **NPPF 100-103**, impact on landscape and traffic increase and loss of agricultural land **NPPF 112**, potential damage to a listed building **NPPF 129**, pressure to expand the largest primary school in Cambridgeshire, and the disruptive effect of such an expansion on Cottenham's Recreation Ground **NPPF 70** significantly outweigh the economic benefits of up to 200 homes (up to 40% "affordable") and up to 70 care places.

Flood risk - NPPF 100 to 103

Cottenham is vulnerable to flooding and the Cottenham Lode, while embanked as it passes through Cottenham, is expected to carry surface water from a wide area to the south-west of Cottenham including, under high water conditions, flows from Northstowe. Although managed by the Environment Agency, Cottenham Lode is currently understood not to be able to withstand a 1 in 100 year flood event. While only a small number of houses in Cottenham would be directly affected by such an event, all five arterial roads would become impassable for several days with severe consequences for families with parents or children outside Cottenham during the day for school or work unable to re-unite at home. Those homes might also suffer loss of power and communications during such an emergency.

This proposed development takes flood risk too lightly. It is not enough to raise floor levels to 150mm above the surrounding ground or increase the size of the retention pond, implicitly recognising the flood risk. The proposal includes a substantial SUDS which is claimed to reduce run-off rates to within the Old West IDB pumping capacity (1.1 litres/second/hectare); however this performance has not been demonstrated nor have arrangements been made for its long-term maintenance. Cottenham has experience of developer's failure to make adequate arrangements for long-term maintenance of SUDS. And it is that SUDS and the IDB's pumps which must prevent an overflow of the Catchwater Drain, into which the outfall from this site must pass, on its way to the Cottenham Lode.

Further safety margins need to be included to account for a progressive increase in the impermeable area of the development as householders extend property, add parking spaces or even paved paths. In addition maintenance of the efficacy of retention ponds is a challenge as demonstrated by the poor maintenance state of the balancing pond and outfall at the nearby Tenison Manor estate which, in turn, has led to refusal by the County Council to adopt the estate's road network.

Unless the banks of the Lode itself are raised to a higher protection standard, the retention pond and control system demonstrated to reduce maximum run-off rates below 5 litres per second, the control system and its power supplies designed to a high standard of integrity, and adequate long-term maintenance proposal in place, the flood risk from this proposal is unacceptable.

Traffic – NPPF 34

NPPF 34 requires that plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. However this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas.

Cottenham is already a congested place in rush hours with traffic flowing south into the village from Ely and East Cambridgeshire via Twenty Pence Road. That normal flow is amplified at the Village Green when traffic from Willingham, Earith and beyond joins the rush towards Histon and Cambridge. The usual heavy traffic flow reaches gridlock whenever the A10 or A14 is compromised.

The Travel Plan acknowledges that it will increase rush hour traffic by 20% on an already busy road. This traffic will then flow onto nine identified junctions with known congestion problems:

9.7.2 SJ2 Lambs Lane

9.8.2 SJ3 Rampton Road

9.8.3 SJ3 Rampton Road / Oakington Road

9.9.4 SJ4 High Street

9.10.4 SJ5 High Street

9.11.3 SJ6 B1049S

9.12.3 SJ7 Denmark Road

9.14.3 SJ9 Oakington

9.15.3 SJ10 Histon - Impington Lane / Water Lane

9.17.2 SJ11 A14 / B1049

We believe that traffic generation will be much higher than estimated for three reasons:

- car ownership is likely to be considerably higher than in the mature Pelham Way estate used in the application, as demonstrated by independent measurement of Brenda Gautrey Way
- car usage will be marginally higher than any of Brenda Gautrey Way and Tenison Manor due to the increased distance from the village's core facilities, thus discouraging walking
- Independent measurements of recent real traffic flows taken at key locations for Cottenham Parish Council in late September 2016 (avoiding holiday and weather effects - a neutral month as recommended in the Design Manual for Roads & Bridges but ignored by the Transport Consultants when preparing their Transport Plan). This data demonstrates (see **Appendix 1**) that the likely trip generation rate will be considerably higher than used in the network modelling by Gladman's Transport Consultants.

The Travel Plan is flawed (see **Appendix 2**) and inappropriate in a rural location with only limited opportunities to use public transport beyond Cambridge City centre. We lack confidence in the plan to decrease the number of traffic movements and assert it is inconsistent with **NPPF 32, 34, and 35**.

Conservation Area and Listed Buildings

Cottenham's **Conservation Area** is a significant heritage asset with many features documented in the **Village Design Statement SPD**. 90% of 973 respondents to the recent Neighbourhood Plan survey considered that preserving the character of the village and Conservation Area is important. This very real perception of residents and the need for protection is supported by **NPPF 131, 132, 134 and 138**.

The roundabout changes necessary to manage the traffic from this development bring the road much closer to the Grade II listed John Moreton 1853 almshouses and expose the vulnerable elderly residents to increased pollution and the buildings themselves to serious damage from vibration.

The development itself is incongruous to the built development of Cottenham – a developed core with only linear development on arterial roads - contrary to both **NPPF 17, 131, 132, 134 and 138** and the **Cottenham Village Design Statement** and **DP/1p, DP2/a and DP/3.2**.

Public Open Space

Cottenham currently has a deficit of 2 ha (hectares each 1000m² or about 2.5 acres) or formal sports provision, which this proposal exacerbates. The on-site open space may be well-provisioned for residents of the site but the site itself is too far from the village centre to be of benefit to most existing residents. In addition, should the Primary School expand on or adjacent to its current site, the County Council could insist on using part of the Recreation Ground proposed as Local Green Space (northern segment of **NH12-049**) which would effectively enclose the formal recreation space at a size below that needed for Cottenham. Addition of an alternate location for formal sports would involve fragmentation and significant capital expenditure.

Loss of agricultural land: NPPF 112.

The site is Grade 1 or Grade 2 Best & Most Versatile agricultural land which should not readily be given up.

2 Rampton Road is the wrong place for this development

NPPF 55 requires that housing should be located where it will enhance or maintain the vitality of rural communities so as to promote sustainable development in rural areas. Only the Primary School, Recreation Ground and Village Hall are within an easy 800 metre walking distance. The 1,000 metre plus distance of the development from the village core, especially without the claimed pedestrian access route, will lead to an increase in traffic and parking, therefore damaging the character of the village core and the views approaching the village from Oakington and Rampton.

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The roundabout changes necessary to manage the traffic from this development bring the road much closer to the Grade II listed John Moreton 1853 almshouses and expose the vulnerable elderly residents to increased pollution and the buildings themselves to serious damage from vibration.

Even when partially screened with woodland, the substantial site will be visible from several public roads and has a significantly different form to established development at the village edge, including Tenison Manor which is both screened by trees and much less visible from public highways. The development is incongruous to the built development of Cottenham – a developed core with only linear development on arterial roads. - contrary to both **NPPF 17, 131, 132, 134 and 138** and the **Cottenham Village Design Statement** and **DP/1p, DP2/a and DP/3.2**.

We also agree that, viewed from Rampton Road, the effect of extending the ridge line of the built environment of Cottenham village into open countryside would result in demonstrable and significant harm to the landscape character. This conflicts with the requirements of **NPPF 59 and 61** policies **DP/3** development criteria and **NE/4** landscape character areas of the development control policies DPD, the adopted **District Design Guide SPD** and policies **NH/2** Protecting and Enhancing Landscape Character of the emerging Local Plan. In the recent survey, conducted as part of the Neighbourhood Plan development, 90% of the 973 respondents considered that preserving the character of the village is important. This very real perception of residents and the need for protection is supported by **NPPF 109, 113**.

Traffic

The Neighbourhood Plan survey indicated that 45% of residents already have concerns about the volume of traffic and speeding in the village. 84% of respondents feel that development will bring more traffic and as such the additional traffic generated is sufficient in itself to refuse **DP/3 2k**.

The travel plan is flawed (see **Appendix 2**) and it is not appropriate in a rural location. We lack confidence in the plan to decrease the number of traffic movements. Contrary to **NPPF 32, 34, 35, 37, 38 and 39**.

Rampton Road is a busy road with some 700 vehicles (800 by 2020) passing the site entrances at substantial speeds in the morning rush hour.

The Gladman Transport and Travel Plans, although suggesting predicted generated traffic levels of 0.518 (0.546 in Travel Plan) per household in the morning rush hour, only aspire to reduce the measured level by 10% over the first five years of the project. With 200 planned houses, this represents an additional 20% or more level of traffic flows. That 0.5 level admits that more than 100 vehicles per hour (+15%) will be added every day to the current load.

However, independent measurement of actual trip generation measurements on a similar (and more representative estate than Pelham Way used in the reports) Cottenham estate in September 2016 confirm a figure between 0.7 and 0.8 (equivalent to 200 additional trips, a 25% increase) is more appropriate for an

estate of this size in Cottenham where vehicle ownership and dependency is higher than might be the case elsewhere. A figure near the high end of this range is likely as the proposal is much further from the village core than any of these three estates, reducing the likelihood that residents will walk to the shops and other amenities in the core.

Reducing this increase, by increasing modal share of passenger transport, cycling and walking will be particularly challenging given the 1,000 metre plus distance of the site from Cottenham's facilities, cyclist and pedestrian safety issues, the limited public transport options and the nature of employment in Cambridge.

Worryingly the Travel Plan only assumes a 10% reduction on "business as usual". The increased intensity of traffic and lack of adequate segregation between pedestrians, cycles and vehicles, especially at these access points, will significantly increase accident risk at these points.

Pedestrian access does rely on significant improvements to speed management on Rampton Road and also the quality of pavements between the site and Lambs Lane, including a safe crossing over Rampton Road. The application states that there is footpath access available from the site coming out on Rampton Road between 83 and 85. (Transport Assessment 4.3.1) From previous discussions with the owners of 83, they and a few neighbours have vehicular access rights over this single lane track. Also it sits outside of the Gladman plot and so is in different ownership. On these two grounds it should be discounted from any assessment which significantly impacts on the applicant's assessment of walking distances and feasibility to the village core. Other statements about distances to core village facilities on foot will have to be reassessed and increased where referenced in the application information.

Regarding the proposed new access points :

- the secondary access (117 Rampton Road) would probably bear the burden of traffic, requiring some form of priority control.
- the main site access road has now been moved further along Rampton Road such that it is now half way down the hill just after Ramphill farm. With traffic rounding the bend at speed from Rampton and reduced the visibility for traffic coming down the hill from Cottenham, this location appears more dangerous than the earlier plan.
- the suggested pedestrian access should be discounted as we understand Gladman have no rights of way over this route which is essentially a private access controlled by two house-owners.

Noise/pollution

Contrary to **NPPF 58, 110 and 123**. Although Gladman have made efforts to lessen the acknowledged traffic noise on the design of the new build there is nothing to lessen effects on existing residents on Rampton Road or indeed the rest of the village.

Due to the proximity to the edge of the village the development fails to be sustainable (**DP/1b** – minimise the need to travel and reduce car dependency) and **NPPF 34, 35, 37 and 38**.

3 The scale of the development is wrong for Cottenham

The proposal offers economic benefits in terms of affordable homes, which are required in Cottenham, and market homes, which are in short supply across South Cambridgeshire. However, this development is too large for Cottenham, especially following recent approval of the Endurance Estates application to build 50 homes and the recently-completed Racecourse View comprising 47 homes. Cottenham is classified - **ST/5** in the adopted Local Plan - as a minor rural centre, and its sustainability is being threatened by a series of larger developments, especially when the development does not fit well with existing infrastructure or infrastructure provision lags the housing development.

The adverse environmental and social impacts of this development, particularly the urbanisation of Rampton Road to cope with the increased traffic **NPPF 39**, medium and long-term flood risk from the necessarily large and complex SUDS **NPPF 100-103**, impact on landscape and traffic increase and loss of agricultural land **NPPF 112**, potential damage to a listed building **NPPF 129**, pressure to expand the largest primary school in Cambridgeshire, and the disruptive effect of such an expansion on Cottenham's Recreation Ground **NPPF 70** significantly outweigh the economic benefits of up to 200 homes (up to 40% "affordable") and up to 70 care places.

Other issues, such as the need for additional indoor community facilities, medical facilities, early years accommodation and open space for sport, and additional space for burials can be mitigated by appropriate developer contributions. Overall, therefore, the proposal does not "improve" as required by **NPPF9** and is not sustainable as required by **NPPF14**.

1. **Scale and Proximity:** The recent survey, conducted as part of the development of Cottenham's Neighbourhood Plan received nearly 1,000 replies. Within this, 66% of residents were neither in favour of large developments nor of such developments when built on the periphery of the village environment. This development, being more than a sustainable 800 metre walking distance from the village core, fails to be sustainable as it will encourage car dependency (**DP/1 1 b** – minimise the need to travel and reduce car dependency) and **NPPF 34, 35, 37 and 38**.
2. **Pre-school places:** Cottenham has a known excess of demand over places which will get worse with the change of rules from September 2017 and the proposed development will increase that demand without doing anything about the supply so the development fails to meet **NPPF 72**. In the recent Neighbourhood Plan survey, 44% of respondents identified the need to increase pre-school provision and 50% thought it quite important or very important to expand the provision. Cottenham's proposed new Village Hall provisionally includes a £600,000 facility for up to 50 early years nursery places. This development and the approved Endurance one have been estimated to create additional demand for 40-50 places daily between 7.30am and 6pm. The proposed developer contribution appears insufficient to implement such a facility.
3. **Medical/day care facilities:** the development will increase both the general population by approx. 10% but with a bias towards the elderly which will increase demands on our already overburdened facilities. Increased pressure on Medical facilities was identified as a significant problem by 75% of residents in the recent Neighbourhood Plan survey. As previously commented these facilities are currently located an unsustainable distance from the development site. The development fails to meet **DP/1 1 m** and **DP/3 1 f**. In response to the survey, a new Medical Centre is already being considered to cope with Cottenham's current 6,500 population at a project cost of around £1,200,000. Large developments such as proposed here add nearly 10% to that unmet demand; the proposed developer contribution falls significantly short of the relevant cost.

4. **Overloading of Primary School:** Contrary to **NPPF 72** and **DP/1 1m, DP/4 2 15**, the development will overload the recently-extended Primary School, already the largest in Cambridgeshire. Any further increase in capacity risks damage to the cohesive role that the school plays in the village. A clear view (62%) from the recent Neighbourhood Plan survey is the value of having one primary school, at its current size, serving the whole village. The recently-completed extension was only built to cope with the current capacity of 630. Further expansion would inevitably, for child safety and traffic considerations, require a second access road leading to a loss of agricultural land and/or Public Open Space which, as mentioned before, is in deficit.
5. **Leisure:** Leisure facilities were seen as inadequate by 68% of residents in the recent Neighbourhood Plan survey. A 10% increase in population will only exacerbate this problem. While the proposed development is located close to many of the outdoor facilities in the village it's an unsustainable walking distance from the core of the village. There is no meaningfully sustainable way for established residents to use the facilities onsite. The development fails to meet **DP/1 1 m** and **DP/3 1f** and **NPPF 58 and 59**. A feasibility study for a new Village Hall has projected a cost of around £2,500,000 including a possible £600,000 for an early years nursery facility or hub for small businesses. The suggested developer contribution is inadequate to ensure adequate funding for this project. Additionally expansion of the Primary School is likely to involve significant loss of open space at the Recreation Ground which cannot readily be mitigated; the lease on our "third field" from County Farms is likely to be revoked to enable any school expansion and, although this could be compensated in a "land swap" considerable expense would be required to bring even an adjacent field into an acceptable state of drainage and stone-free for sports use. There is not enough available land adjacent to the existing Recreation ground to satisfy both land for any school expansion and bring Cottenham's provision up to CURRENT needs.
6. **Employment:** the development fails to meet **NPPF 17 and 19** as well as **DP/1 1b**. Without local employment provision it will increase local commuter traffic. The recent Neighbourhood Plan survey identified that 57% saw the development of local employment as being important. Without local provision it will increase local commuter traffic. The new Village hall is being designed at a projected cost of around £2,500,000 including a possible £600,000 for an early years nursery facility or hub for small businesses; if constructed this will go some way towards closing the supply gap.
7. **Burial grounds:** Cottenham's three burial grounds are nearly full; any significant population expansion will create a need to develop additional capacity. Every 100 additional houses is likely to create "demand" for around 30 additional burial plots within the 100 years before plots can be recycled legally (assuming 2 per plot and 80% cremated / 20% buried) requiring about 3/20 hectares (3/8 acre) per 100 houses. Sadly, the demographic basis of the development – especially the 70 residential homes with care – exacerbates this issue, with each care home place likely to create demand at a similar level to a house. On that basis, the necessary land would cost at least £300 per house or care place, assuming appropriate land is available, preferably adjacent to the existing provision.

4 The development is unlikely to deliver 40% truly affordable homes for Cottenham

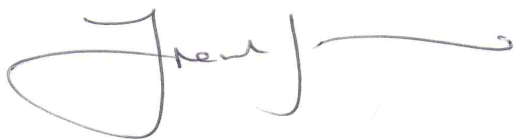
Affordable housing

In principle, Cottenham needs more affordable homes but only if they are truly affordable and not built at the expense of an excessive number of market homes disconnected from the village environment. Unless they can be built within reach of a mortgage of 3.5x gross salary as recommended by DCLG (Land Registry and the Annual Survey of Hours & Earnings, ONS) and quoted in section 2.4.3 of the Affordable Homes setion of the application) they will be out of reach of village residents most in need of them and cannot be considered as affordable **NPPF Annex 2**.

Another issue with the affordable homes is their distance from the village core; an 800 metre distance is regarded as truly sustainable whereas these will be over 1,200 metres away encouraging rather than discouraging car use and, in turn making them less affordable.

Due to the distance from the core of the village the development fails to be sustainable (**DP/1b** – minimise the need to travel and reduce car dependency) and **NPPF 34 and 35**.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Frank Morris', with a long horizontal flourish extending to the right.

Frank Morris

Chair

Appendix 1: Traffic congestion at Oakington Road – Rampton Road roundabout

Summary

This report estimates the effects of several planning applications in Cottenham on the already congested Oakington Road – Rampton Road roundabout following independent measurements of traffic flows carried out by TSL Traffic Data Collection on 26th September 2016.

Oakington Road connects villages to the south-west of Cottenham via this roundabout to Cottenham and the network beyond via Rampton Road which runs north-west to Rampton, Willingham etc / south-east to Histon and Cambridge. Measurements of flows and queue lengths were taken on all legs of this roundabout.

Short queues develop in both the morning and afternoon rush hours with a longer queue present on the Oakington Road approach during the evening peak.

All four current planning applications will, unless the effects are mediated in some way, exacerbate these queues as they contribute additional traffic to Oakington Road and Rampton Road.

Unlike many studies in support of planning applications, the estimated trip rate generation is based on real measurements on the relatively new Brenda Gautrey Way estate in Cottenham. Measurements here slightly under-estimate vehicle flows on the planned development because Brenda Gautrey Way is physically closer to Cottenham village centre so a higher proportion of journeys can be walked. Nevertheless the expected number from these measurements – 0.76 vehicle trips per household in the rush hours - is generally higher than that predicted using TRICS data from unrepresentative sites in other parts of the country.

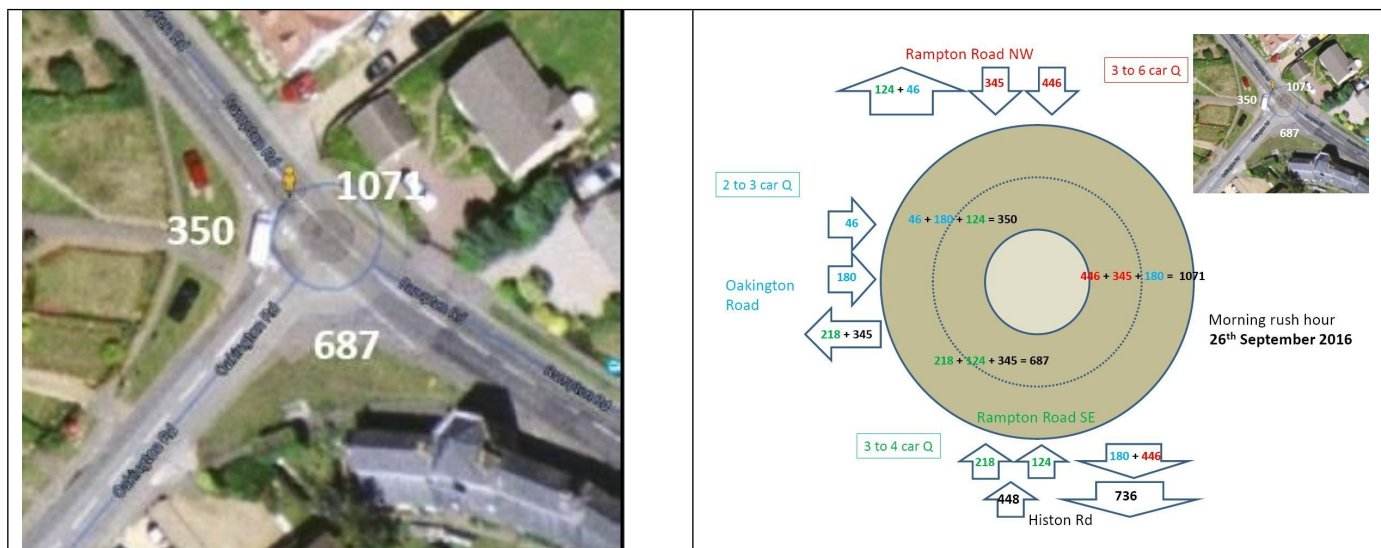
Traffic flows were also measured on the road into Cambridge – Histon Road – as a comparator with other available statistics and predictions.

This report also considers the likely effect of adding a “clean” left filter lane on each leg of the roundabout. To function effectively, this would require considerable widening of both the inner “lane” of the mini-roundabout and addition of an outer lane to minimise interference between the various flows on what is a relatively tight roundabout. Such a widening scheme has serious planning and safety issues as the roundabout is located in front of the Grade II listed “John Moreton 1853” almshouses and the driveways of several houses connect directly on to the roundabout.

It is unclear as to the degree which Gladman’s latest proposals for re-engineering this roundabout and its approaches will achieve the same alleviation as described here. The design, despite being draconian in scale and impact, does not create “clean left filters” and the basis of their modelling uses lower than realistic traffic flow and trip rates which are obscured by over-reliance on simulation.

Flows on 26th September 2016

The schematics show traffic flows in the AM and PM peaks on 26th September 2016.



Inlet > exit	Peak hour	Peak hour flow
Oakington Rd > RRd North AM peak	9.00 to 10.00	46 vehicles, inc. 0 buses and 0 HGVs (G2015 - 57)
Oakington Rd > RRd South AM peak	8.00 to 9.00	180 vehicles, inc. 0 buses and 3 HGVs (G2015 - 147)
Rampton Rd N > RRd S AM peak	7.30 to 8.30	447 vehicles, inc. 2 buses and 3 HGVs (G2015 - 531)
Rampton Rd N > Oakington Rd AM peak	7.15 to 8.15	345 vehicles, inc. 3 buses and 0 HGVs (G2015 - 333)
Rampton Rd S > RRd N AM peak is with	8.00 to 9.00	124 vehicles, inc. 5 buses and 0 HGVs (G2015 - 140)
Rampton Rd S > Oakington Rd AM peak	8.00 to 9.00	218 vehicles, inc. 0 buses and 2 HGVs (G2015 - 186)

Morning peak hour flows - highest southbound; longest queue on Rampton Road inbound



Inlet > exit	Peak hour	Peak hour flow
Oakington Rd > RRd North PM peak	17.00 to 18.00	245 vehicles, inc. 0 buses and 0 HGVs (G2015 - 241)
Oakington Rd > RRd South PM peak	17.15 to 18.15	124 vehicles, inc. 0 buses and 1 HGVs (G2015 - 147)
Rampton Rd N > RRd S PM peak	16.00 to 17.00	147 vehicles, inc. 0 buses and 0 HGVs (G2015 - 137)
Rampton Rd N > Oakington Rd PM peak	17.15 to 18.15	88 vehicles, inc. 0 buses and 0 HGVs (G2015 - 97)
Rampton Rd S > RRd N PM peak	17.00 to 18.00	545 vehicles, inc. 3 buses and 1 HGVs (G2015 - 508)
Rampton Rd S > Oakington Rd PM peak	17.00 to 18.00	154 vehicles, inc. 0 buses and 1 HGVs (G2015 - 163)

Evening peak hour flows - highest northbound; longest queue (15) on Oakington Road inbound

Trip rate generation for new estates in Cottenham

Measurement at Brenda Gautrey Way (108 dwellings inc. Leopold Way etc) <> Beach Road

The traffic survey (26th September 2016) carried out for Cottenham Parish Council by 360TSL Traffic Data Collection on the sole vehicular entry/exit from Brenda Gautrey Way (including traffic from Paxton Close, Sovereign Way and Leopold Walk). These homes are typically only one third as far away from the village's facilities as those on the proposed Oakington Road or Rampton Road sites yet generate some **53 vehicle departures (0.5 per household) and 24 arrivals (0.26 per household) during the morning peak hour** or approximately **0.76 trips per household per hour**. The PM peak hour is a reversal of these two rates with 56 arrivals and 24 departures.

This is consistent with earlier independent TSL surveys (22nd March - AM d55/a23 and PM d14/a42 and 22nd April AM -d53/a20 and PM d19/a42). It should also be noted that the Brenda Gautrey Way development has a footpath connecting it directly to the high street near a village shop, the secondary school and other amenities; this will have an impact on reducing car use from the Brenda Gautrey site when compared with the proposed developments. So **some uplift on the Cottenham Parish Council data** should be factored into traffic predictions for the Oakington Road and Rampton Road sites.

- Persimmon - Applying this real trip generation rate to the 126 home proposal by Persimmon indicates some 62 morning departures and 24 arrivals, **about 20% higher than claimed by RSK** in the Traffic Plan before taking account of the increased distance from the village core.
- Gladman - Applied to the 200 home / 70 residential place Gladman proposal indicates around 105 departures and 51 arrivals - similar to the 104/46 numbers used by Ashleyhelme in Table 8 of their Traffic report although their Travel Plan target of 0.546 additional trips per home appears ambitious.

Inlet > exit	Peak hour	Peak hour flow
Brenda Gautrey > BRd North AM peak	8.00 to 9.00	40 vehicles, inc. 0 buses and 0 HGVs
Brenda Gautrey > BRd South AM peak	7.00 to 8.00	13 vehicles, inc. 0 buses and 0 HGVs
Brenda Gautrey > BRd North PM peak	17.15 to 18.15	18 vehicles, inc. 0 buses and 0 HGVs
Brenda Gautrey > BRd South PM peak	17.00 to 18.00	6 vehicles, inc. 0 buses and 0 HGVs
Beach Rd N > BGW AM peak	8.15 to 9.15	14 vehicles, inc. 0 buses and 0 HGVs
Beach Rd S > BGW AM peak	8.00 to 9.00	3 vehicles, inc. 0 buses and 0 HGVs
Beach Rd N > BGW PM peak	16.00 to 17.00	40 vehicles, inc. 0 buses and 0 HGVs
Beach Rd S > BGW PM peak	17.00 to 18.00	16 vehicles, inc. 0 buses and 0 HGVs

Effects of development on the morning peak flows

The schematics show traffic flows supplemented by the likely effects of the Endurance, Gladman and Persimmon proposals.



Effect on Morning peak flows - highest southbound; longest queue on Rampton Road inbound

Oakington Road approach

Around 226 cars arrive in the morning peak hour today.

Oakington Rd already suffers congestion – with 2 to 6 stationary vehicles between 7am and 9.30am

Endurance (50) will add at least 35 trips to the morning load on Oakington Rd, **25 into** and 13 from

Approx. 13 will flow towards the roundabout

Gladman (210) will add at least 150 trips to the morning load on Rampton Road, 105 into and **45 from**

Approx. 33 will flow from the roundabout, **about 22 from Oakington Rd**, 11 from Rampton Rd S,

Persimmon (130) will add at least 90 trips to the morning load on Oakington Road, **65 into** and 33 from

Approx. 33 will flow towards the roundabout

This will **add 68 cars to the 226 that arrive there today**, an increase of 30% that **will extend queue lengths**

Rampton Road south-bound approach

Around 792 cars arrive in the morning peak hour today.

Rampton Rd NW already suffers congestion – with 3 to 6 stationary vehicles between 7am and 9.30am

Endurance (50) will add at least 35 trips to the morning load on Oakington Road, 25 into and **13 from**

Approx. 7 will flow from the roundabout; **about 5 from Rampton Rd N**, 2 from Rampton Rd S,

Gladman (210) will add at least 150 trips to the morning load on Rampton Road, **105 into** and 45 from

Approx. 70 will flow towards the roundabout

Persimmon (130) will add at least 90 trips to the morning load on Oakington Road, 65 into and **33 from**

Approx. 20 will flow from the roundabout; **about 14 from Rampton Rd N**, 6 from Rampton Rd S,

This will **add 95 to the 792 that arrive there today**, an increase of 13% that **will extend queue lengths**.

Rampton Road north-bound approach

Around 342 cars arrive in the morning peak hour today.

Rampton Rd NW already suffers congestion – with 3 to 4 stationary vehicles between 7am and 9.30am

Endurance (50) will add at least 35 trips to the morning load on Oakington Road, 25 into and **13 from**

Approx. 7 will flow from the roundabout; about 5 from Rampton Rd N, **2 from Rampton Rd S**,

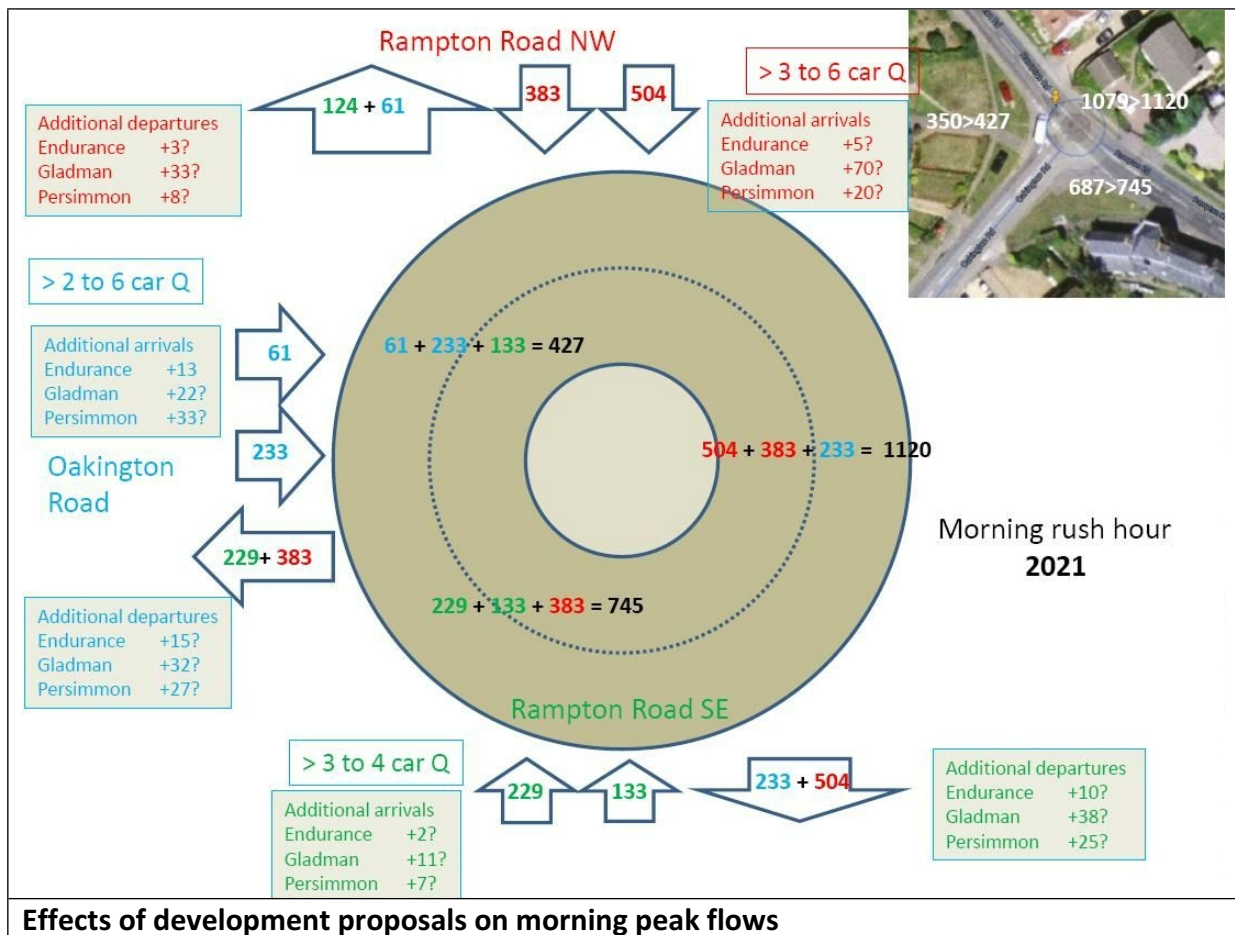
Gladman (210) will add at least 150 trips to the morning load on Rampton Road, 105 into and **45 from**

Approx. 33 will flow from the roundabout, about 22 from Oakington Rd, **11 from Rampton Rd S**,

Persimmon (130) will add at least 90 trips to the morning load on Oakington Road, 65 into and **33 from**

Approx. 20 will flow from the roundabout; about 13 from Rampton Rd N, **7 from Rampton Rd S**,

This will **add 20 to the 342 that arrive there today**, an increase of 6% that **will extend queue lengths**.



Effects of development on the evening peak flows

The schematics show traffic flows supplemented by the likely effects of the Endurance, Gladman and Persimmon proposals.



Evening peak hour flows - highest northbound; longest queue on Oakington Road inbound

Oakington Road approach

Around 369 cars arrive in the afternoon peak hour today.

Oakington Rd already suffers congestion – with 10 to 15 stationary vehicles between 5pm and 5.25pm
Endurance (50) will add at least 35 trips to the afternoon load on Oakington Rd, **13 into** and 25 from

Approx. 7 will flow towards the roundabout

Gladman (210) will add at least 150 trips to the afternoon load on Rampton Road, 45 into and **105 from**

Approx. 70 will flow from the roundabout, **about 23 from Oakington Rd**, 47 from Rampton Rd S,

Persimmon (130) will add at least 90 trips to the afternoon load on Oakington Road, **33 into** and 45 from

Approx. 16 will flow towards the roundabout

This will **add 46 cars to the 369 that arrive there today**, an increase of **12%** that **will extend queue lengths**

Rampton Road south-bound approach

Around 235 cars arrive in the afternoon peak hour

Rampton Rd NW already suffers congestion – with up to 4 stationary vehicles between 5pm and 7pm

Endurance (50) will add at least 35 trips to the afternoon load on Oakington Road, 13 into and **25 from**

Approx. 15 will flow from the roundabout; **about 5 from Rampton Rd N**, 5 from Rampton Rd S,

Gladman (210) will add at least 150 trips to the afternoon load on Rampton Road, **45 into** and 105 from

Approx. 30 will flow towards the roundabout

Persimmon (130) will add at least 90 trips to the afternoon load on Oakington Road, 33 into and **65 from**

Approx. 40 will flow from the roundabout; **about 14 from Rampton Rd N**, 26 from Rampton Rd S,

This will **add 49 to the 235 that arrive there today**, an increase of **6%** that **will extend queue lengths**.

Rampton Road north-bound approach

Around 342 cars arrive in the afternoon peak hour today.

Rampton Rd SE already suffers congestion – with up to 5 stationary vehicles between 4pm and 5.30pm

Endurance (50) will add at least 35 trips to the afternoon load on Oakington Road, 13 into and **25 from**

Approx. 13 will flow from the roundabout; about 4 from Rampton Rd N, **9 from Rampton Rd S**,

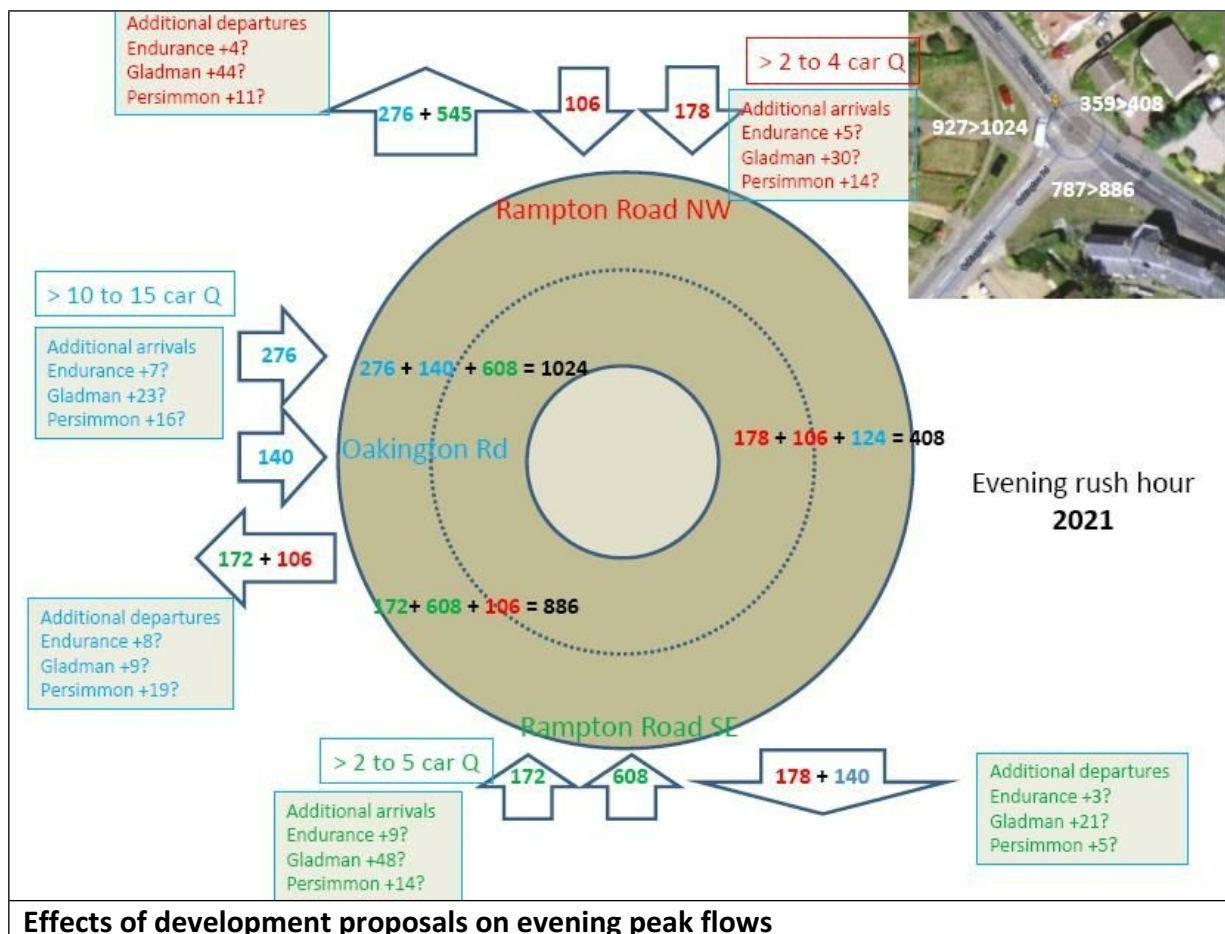
Gladman (210) will add at least 150 trips to the afternoon load on Rampton Road, 45 into and **105 from**

Approx. 70 will flow from the roundabout, about 22 from Oakington Rd, **48 from Rampton Rd S**,

Persimmon (130) will add at least 90 trips to the afternoon load on Oakington Road, 33 into and **65 from**

Approx. 20 will flow from the roundabout; about 6 from Rampton Rd N, **14 from Rampton Rd S**,

This will **add 71 to the 709 that arrive there today**, an increase of **10%** that **will extend queue lengths**.



Possible mitigations

Oakington Road approach

Around 226 cars arrive in the morning peak hour

A full “left-filter” lane could remove some 46 cars from today’s and 61 from “tomorrow’s traffic

As 233 cars would be arriving **queue lengths will remain about the same even with a “clean” filter lane.**

Rampton Road south-bound approach

Around 801 cars arrive in the morning peak hour

A full “left-filter” lane could remove some 447 cars from today’s and 504 from “tomorrow’s traffic

As “only” ~383 cars would be arriving queues would disappear.

Rampton Road north-bound approach

Around 342 cars arrive in the morning peak hour

A full “left-filter” lane could remove some 218 cars from today’s and 229 from “tomorrow’s traffic

As “only” ~133 cars would be arriving queue lengths would disappear.

Oakington Road approach

Around 369 cars arrive today in the afternoon peak hour

A full “left-filter” lane could remove some 245 cars from today’s and 276 from “tomorrow’s traffic

As “only” 140 cars would be arriving queues would disappear

Rampton Road south-bound approach

Around 235 cars arrive in the afternoon peak hour

A full “left-filter” lane could remove some 147 cars from today’s and 178 from “tomorrow’s traffic

As “only” 106cars would be arriving queues would disappear.

Rampton Road north-bound approach

Around 699 cars arrive in the afternoon peak hour

A full “left-filter” lane could remove some 154 cars from today’s and 172 from “tomorrow’s traffic

As only 608 cars would still be arriving **queue lengths would drop slightly.**

Conclusion

Either of the major developments (Gladman or Persimmon) would add significant traffic to this marginally overloaded roundabout, extending queue lengths, especially along Oakington Road in the morning on which even a “clean” left filter would only stabilise queues and along Rampton Road northbound in the evening.

Appendix 2: Measurements taken by TSL Traffic Management on 26th September 2016

Roundabout approach – Rampton Road North

TIME	Ahead to Rampton Road (South)				Right to Oakington Road			
	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	90	1	0	91	69	0	1	70
0715 - 0730	98	2	0	100	73	0	1	74
0730 - 0745	118	1	0	119	87	0	0	87
0745 - 0800	102	1	0	103	99	0	1	100
Hourly Total	408	5	0	413	328	0	3	331
0800 - 0815	112	1	2	115	83	0	1	84
0815 - 0830	107	0	2	109	68	0	0	68
0830 - 0845	98	0	1	99	59	0	0	59
0845 - 0900	88	1	0	89	46	0	0	46
Hourly Total	405	2	5	412	256	0	1	257
0900 - 0915	75	1	0	76	38	1	0	39
0915 - 0930	69	0	0	69	31	0	0	31
0930 - 0945	33	1	0	34	22	0	1	23
0945 - 1000	29	0	0	29	17	0	0	17
Hourly Total	206	2	0	208	108	1	1	110

Session Total	1019	9	5	1033	692	1	5	698
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1600 - 1615	35	0	0	35	19	0	0	19
1615 - 1630	44	0	0	44	23	0	0	23
1630 - 1645	41	0	0	41	24	0	0	24
1645 - 1700	27	0	0	27	13	0	0	13
Hourly Total	147	0	0	147	79	0	0	79
1700 - 1715	29	0	0	29	24	0	0	24
1715 - 1730	28	0	0	28	16	0	0	16
1730 - 1745	32	0	0	32	20	0	0	20
1745 - 1800	27	0	0	27	24	0	0	24
Hourly Total	116	0	0	116	84	0	0	84
1800 - 1815	20	0	0	20	28	0	0	28
1815 - 1830	34	0	0	34	14	0	0	14
1830 - 1845	26	0	0	26	17	0	0	17
1845 - 1900	23	0	0	23	13	0	0	13
Hourly Total	103	0	0	103	72	0	0	72

Session Total	366	0	0	366	235	0	0	235
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Roundabout approach – Rampton Road South

	Left to Oakington Road				Ahead to Rampton Road (North)			
TIME	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	24	2	0	26	9	0	0	9
0715 - 0730	31	4	0	35	11	0	1	12
0730 - 0745	33	2	0	35	23	0	0	23
0745 - 0800	57	1	0	58	20	1	1	22
Hourly Total	145	9	0	154	63	1	2	66
0800 - 0815	55	0	0	55	26	0	1	27
0815 - 0830	54	1	0	55	31	0	1	32
0830 - 0845	57	1	0	58	30	0	0	30
0845 - 0900	50	0	0	50	29	0	3	32
Hourly Total	216	2	0	218	116	0	5	121
0900 - 0915	32	1	0	33	23	0	1	24
0915 - 0930	30	0	0	30	20	1	1	22
0930 - 0945	16	1	0	17	23	1	1	25
0945 - 1000	13	0	0	13	19	1	0	20
Hourly Total	91	2	0	93	85	3	3	91

Session Total	452	13	0	465	264	4	10	278
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1600 - 1615	40	1	0	41	85	1	0	86
1615 - 1630	36	0	0	36	99	0	1	100
1630 - 1645	32	0	0	32	103	0	1	104
1645 - 1700	35	1	0	36	114	0	1	115
Hourly Total	143	2	0	145	401	1	3	405
1700 - 1715	43	0	0	43	127	0	1	128
1715 - 1730	41	1	0	42	156	0	0	156
1730 - 1745	33	0	0	33	141	1	1	143
1745 - 1800	36	0	0	36	117	0	1	118
Hourly Total	153	1	0	154	541	1	3	545
1800 - 1815	32	1	0	33	103	2	1	106
1815 - 1830	12	0	0	12	85	0	1	86
1830 - 1845	10	0	0	10	80	0	0	80
1845 - 1900	9	0	0	9	71	1	1	73
Hourly Total	63	1	0	64	339	3	3	345

Session Total	359	4	0	363	1281	5	9	1295
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Roundabout approach – Oakington Road

	Left to Rampton Road (North)				Right to Rampton Road (South)			
TIME	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	9	0	0	9	17	0	0	17
0715 - 0730	10	0	0	10	17	0	0	17
0730 - 0745	13	0	0	13	26	1	0	27
0745 - 0800	6	0	0	6	27	0	0	27
Hourly Total	38	0	0	38	87	1	0	88
0800 - 0815	9	0	0	9	40	1	0	41
0815 - 0830	8	0	0	8	51	0	0	51
0830 - 0845	7	0	0	7	46	2	0	48
0845 - 0900	6	0	1	7	40	0	0	40
Hourly Total	30	0	1	31	177	3	0	180
0900 - 0915	12	0	0	12	24	1	1	26
0915 - 0930	10	0	0	10	20	2	0	22
0930 - 0945	14	0	0	14	20	0	0	20
0945 - 1000	10	0	0	10	16	1	0	17
Hourly Total	46	0	0	46	80	4	1	85

Session Total	114	0	1	115	344	8	1	353
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1600 - 1615	30	0	0	30	18	1	0	19
1615 - 1630	38	0	0	38	21	1	0	22
1630 - 1645	40	0	1	41	25	1	0	26
1645 - 1700	46	0	0	46	27	1	0	28
Hourly Total	154	0	1	155	91	4	0	95
1700 - 1715	62	0	0	62	33	1	0	34
1715 - 1730	70	0	0	70	26	0	0	26
1730 - 1745	60	0	0	60	30	1	0	31
1745 - 1800	53	0	0	53	32	0	0	32
Hourly Total	245	0	0	245	121	2	0	123
1800 - 1815	49	0	0	49	35	0	0	35
1815 - 1830	53	0	0	53	17	1	0	18
1830 - 1845	46	0	0	46	23	0	0	23
1845 - 1900	42	0	0	42	16	1	0	17
Hourly Total	190	0	0	190	91	2	0	93

Session Total	589	0	1	590	303	8	0	311
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Roundabout – queuing AM

TIME	Queue Lengths (Vehicles)					
	Rampton Road (SB)		Rampton Road (NB)		Oakington Road	
	Stationary	Rolling	Stationary	Rolling	Stationary	Rolling
700	0	0	0	0	0	0
705	0	0	0	0	0	0
710	3	0	2	0	0	0
715	2	0	0	0	0	0
720	4	0	3	0	3	0
725	3	0	0	0	3	0
730	5	0	2	0	2	0
735	5	0	4	0	2	0
740	6	0	3	0	2	0
745	5	0	4	0	2	0
750	4	0	3	0	2	0
755	5	0	3	0	3	0
800	4	0	3	0	3	0
805	4	0	3	0	2	0
810	4	0	3	0	3	0
815	4	0	0	0	2	0
820	5	0	4	0	2	0
825	4	0	3	0	2	0
830	3	0	4	0	0	0
835	4	0	3	0	2	0
840	3	0	0	0	2	0
845	4	0	3	0	0	0
850	4	0	0	0	0	0
855	4	0	3	0	0	0
900	0	0	0	0	0	0
905	0	0	0	0	0	0
910	0	0	0	0	2	0
915	0	0	0	0	0	0
920	2	0	0	0	0	0
925	0	0	0	0	0	0
930	0	0	0	0	0	0
935	0	0	0	0	5	0
940	3	0	0	0	0	0
945	0	0	0	0	2	0
950	0	0	0	0	0	0
955	0	0	0	0	0	0

Roundabout approach – queuing PM

TIME	Queue Lengths (Vehicles)					
	Rampton Road (SB)		Rampton Road (NB)		Oakington Road	
	Stationary	Rolling	Stationary	Rolling	Stationary	Rolling
1600	0	0	0	0	3	0
1605	0	0	0	0	4	0
1610	0	0	0	0	3	0
1615	0	0	0	0	3	0
1620	0	0	0	0	3	0
1625	0	0	0	0	8	0
1630	2	0	2	0	5	0
1635	0	0	0	0	5	0
1640	2	0	0	0	5	0
1645	3	0	4	0	6	0
1650	2	0	0	0	5	0
1655	0	0	5	0	6	0
1700	0	0	2	0	10	2
1705	3	0	0	0	10	0
1710	0	0	3	0	10	0
1715	2	0	0	0	15	4
1720	0	0	2	0	12	2
1725	2	0	0	0	10	2
1730	2	0	2	0	8	0
1735	3	0	0	0	8	2
1740	3	0	2	0	8	2
1745	3	0	2	0	6	0
1750	2	0	2	0	7	0
1755	4	0	2	0	4	0
1800	0	0	0	0	6	2
1805	2	0	0	0	6	0
1810	3	0	0	0	7	0
1815	2	0	0	0	4	0
1820	3	0	2	0	4	0
1825	0	0	0	0	3	0
1830	2	0	0	0	4	0
1835	2	0	0	0	4	0
1840	3	0	0	0	3	0
1845	0	0	0	0	3	0
1850	0	0	0	0	4	0
1855	0	0	0	0	3	0

Beach Road approach North

	Ahead to Beach Road (South)				Right to Brenda Guatreay Way			
TIME	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	61	0	0	61	2	0	0	2
0715 - 0730	67	2	0	69	1	0	0	1
0730 - 0745	83	1	0	84	1	0	0	1
0745 - 0800	96	0	0	96	3	0	0	3
Hourly Total	307	3	0	310	7	0	0	7
0800 - 0815	92	2	0	94	3	0	0	3
0815 - 0830	93	1	0	94	2	0	0	2
0830 - 0845	81	0	2	83	4	0	0	4
0845 - 0900	72	2	0	74	2	0	0	2
Hourly Total	338	5	2	345	11	0	0	11
0900 - 0915	54	0	1	55	6	0	0	6
0915 - 0930	43	0	0	43	4	0	0	4
0930 - 0945	35	3	0	38	3	0	0	3
0945 - 1000	36	0	0	36	3	0	0	3
Hourly Total	168	3	1	172	16	0	0	16

Session Total	813	11	3	827	34	0	0	34
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1600 - 1615	32	1	0	33	2	0	0	2
1615 - 1630	31	2	0	33	5	0	0	5
1630 - 1645	35	0	0	35	6	0	0	6
1645 - 1700	26	0	1	27	5	0	0	5
Hourly Total	124	3	1	128	18	0	0	18
1700 - 1715	36	0	0	36	5	0	0	5
1715 - 1730	27	0	0	27	7	0	0	7
1730 - 1745	31	1	0	32	8	0	0	8
1745 - 1800	29	0	0	29	11	0	0	11
Hourly Total	123	1	0	124	31	0	0	31
1800 - 1815	30	2	0	32	14	0	0	14
1815 - 1830	26	1	0	27	6	0	0	6
1830 - 1845	24	0	0	24	3	0	0	3
1845 - 1900	23	0	0	23	5	0	0	5
Hourly Total	103	3	0	106	28	0	0	28

Session Total	350	7	1	358	77	0	0	77
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Beach Road approach South

	Left to Brenda Guatrey Way				Ahead to Beach Road (North)			
TIME	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	0	0	0	0	17	1	0	18
0715 - 0730	0	0	0	0	25	1	0	26
0730 - 0745	0	0	0	0	33	0	0	33
0745 - 0800	1	0	0	1	32	2	0	34
Hourly Total	1	0	0	1	107	4	0	111
0800 - 0815	0	0	0	0	43	1	0	44
0815 - 0830	0	0	0	0	35	2	0	37
0830 - 0845	2	0	0	2	44	0	2	46
0845 - 0900	1	0	0	1	39	0	0	39
Hourly Total	3	0	0	3	161	3	2	166
0900 - 0915	0	0	0	0	31	1	0	32
0915 - 0930	0	0	0	0	29	0	0	29
0930 - 0945	1	0	0	1	30	2	0	32
0945 - 1000	1	0	0	1	23	1	0	24
Hourly Total	2	0	0	2	113	4	0	117

Session Total	6	0	0	6	381	11	2	394
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1600 - 1615	2	0	0	2	57	1	0	58
1615 - 1630	3	0	0	3	69	0	1	70
1630 - 1645	3	0	0	3	89	3	0	92
1645 - 1700	5	0	0	5	129	1	0	130
Hourly Total	13	0	0	13	344	5	1	350
1700 - 1715	5	0	0	5	134	0	1	135
1715 - 1730	2	0	0	2	131	1	0	132
1730 - 1745	3	0	0	3	150	1	0	151
1745 - 1800	6	0	0	6	144	1	0	145
Hourly Total	16	0	0	16	559	3	1	563
1800 - 1815	3	0	0	3	129	0	0	129
1815 - 1830	5	0	0	5	81	1	0	82
1830 - 1845	1	0	0	1	77	1	0	78
1845 - 1900	2	0	0	2	71	0	0	71
Hourly Total	11	0	0	11	358	2	0	360

Session Total	40	0	0	40	1261	10	2	1273
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Beach Road approach – Brenda Gautrey Way

	Left to Beach Road (North)				Right to Beach Road (South)			
TIME	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	7	0	0	7	2	0	0	2
0715 - 0730	1	0	0	1	2	0	0	2
0730 - 0745	6	0	0	6	2	0	0	2
0745 - 0800	6	0	0	6	7	0	0	7
Hourly Total	20	0	0	20	13	0	0	13
0800 - 0815	11	0	0	11	1	0	0	1
0815 - 0830	5	0	0	5	3	0	0	3
0830 - 0845	13	0	0	13	1	0	0	1
0845 - 0900	11	0	0	11	1	0	0	1
Hourly Total	40	0	0	40	6	0	0	6
0900 - 0915	7	0	0	7	3	0	0	3
0915 - 0930	3	0	0	3	1	0	0	1
0930 - 0945	2	0	0	2	2	0	0	2
0945 - 1000	2	0	0	2	1	0	0	1
Hourly Total	14	0	0	14	7	0	0	7

Session Total	74	0	0	74	26	0	0	26
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1600 - 1615	4	0	0	4	0	0	0	0
1615 - 1630	6	0	0	6	1	0	0	1
1630 - 1645	1	0	0	1	2	0	0	2
1645 - 1700	6	0	0	6	0	0	0	0
Hourly Total	17	0	0	17	3	0	0	3
1700 - 1715	5	0	0	5	1	0	0	1
1715 - 1730	2	0	0	2	1	0	0	1
1730 - 1745	3	0	0	3	0	0	0	0
1745 - 1800	7	0	0	7	4	0	0	4
Hourly Total	17	0	0	17	6	0	0	6
1800 - 1815	6	0	0	6	0	0	0	0
1815 - 1830	5	0	0	5	2	0	0	2
1830 - 1845	4	0	0	4	0	0	0	0
1845 - 1900	2	0	0	2	0	0	0	0
Hourly Total	17	0	0	17	2	0	0	2

Session Total	51	0	0	51	11	0	0	11
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Histon Road 26th September 2016

TIME	Northbound				Southbound			
	LIGHT	HEAVY	BUS	TOTAL	LIGHT	HEAVY	BUS	TOTAL
0700 - 0715	75	1	0	76	85	0	0	85
0715 - 0730	77	2	2	81	103	2	2	107
0730 - 0745	85	1	1	87	112	2	2	116
0745 - 0800	89	1	2	92	136	1	0	137
Hourly Total	326	5	5	336	436	5	4	445
0800 - 0815	103	3	2	108	167	2	3	172
0815 - 0830	106	1	1	108	162	3	1	166
0830 - 0845	109	0	0	109	186	1	0	187
0845 - 0900	121	1	1	123	194	5	1	200
Hourly Total	439	5	4	448	709	11	5	725
0900 - 0915	96	2	1	99	179	2	2	183
0915 - 0930	85	2	1	88	155	3	2	160
0930 - 0945	81	0	0	81	138	0	0	138
0945 - 1000	67	1	2	70	121	1	1	123
Hourly Total	329	5	4	338	593	6	5	604

Session Total	1094	15	13	1122	1738	22	14	1774
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1600 - 1615	120	1	2	123	67	1	1	69
1615 - 1630	116	1	1	118	69	1	1	71
1630 - 1645	136	2	2	140	77	0	0	77
1645 - 1700	149	0	1	150	78	1	2	81
Hourly Total	521	4	6	531	291	3	4	298
1700 - 1715	167	2	2	171	72	0	0	72
1715 - 1730	182	1	3	186	93	0	2	95
1730 - 1745	177	0	3	180	89	1	1	91
1745 - 1800	179	1	1	181	90	2	0	92
Hourly Total	705	4	9	718	344	3	3	350
1800 - 1815	151	0	2	153	77	2	2	81
1815 - 1830	133	0	0	133	75	0	2	77
1830 - 1845	119	1	1	121	58	2	0	60
1845 - 1900	102	0	2	104	56	1	0	57
Hourly Total	505	1	5	511	266	5	4	275

Session Total	1731	9	20	1760	901	11	11	923
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Appendix 2: Transport & Travel Plan - critique

The **Transport and Travel Plans** have numerous errors or omissions with consequences for traffic volumes or road safety:

4.2.5.6 The speed surveys were conducted in March 2015; relying on measurements taken in a non-neutral month (to avoid holiday and adverse weather effects) is not in line with practice set in the Design Manual for Roads & Bridges

4.2.5.7 The surveys indicate a considerable proportion of vehicles travelling at over 40mph near the 30mph limited area at the proposed site access.

4.2.6 The surveys indicate a considerable proportion of vehicles travelling at nearly 40mph within the 30mph limited area near the proposed site access. Achieving acceptable visibility requirements will need more than simple relocation of the 30mph boundary as has been found on Beach Road where an additional 40mph buffer zone has been introduced and further measures are now being considered.

4.3 Given the prevailing road speeds it is likely that only a segregated cycle path would provide adequate safety for cyclists. The proposed internal cycle route depends on a possible future development by Persimmon and must be discounted here. Roads within Cottenham are not conducive to safe cycling due to frequent width constraints introduced in 1993 as part of the traffic-calming scheme; these chicanes force cyclists to dismount or cross into the path of motorists. The proposed Toucan crossing on Rampton road will help but appears not to be fully funded yet is only necessary as a result of the increased pedestrian and road traffic caused by the development.

4.4 No consideration has been given to mobility-impaired residents wishing to access facilities in the village core some considerable distance away.

5.1.1 Walking is the most important mode of travel at the local level BUT 2Km is an unsustainable walking distance for a substantial proportion of adult residents, especially those (most) with access to a car.

5.1.2 reinforces 2Km as the maximum walking distance, implying that 400m is much more sustainable.

5.1.3 Only the Primary School and a bus stop are within the 800m / 10 minute walk isochrones from the proposed site; all other village facilities are further away. Even the bus stops are the final stops on a 1-way journey around the village which terminates at Lambs Lane. Ongoing travel is often subject to considerable synchronisation delays at this stop. The legitimacy of using the suggested walk route alongside number 83 Rampton Road is questioned as Gladman have no control over access to it. We note the s106 offer to improve the bus stop on Lambs Lane and provide electronic timetable information there but would point out that RTI already exists at the terminus bus stop a little further along Lambs Lane.

5.1.4 While many village facilities are within 2Km of the site, it is unlikely that many residents would choose to walk to places such as Travis Perkins, supermarket or greengrocer with all but the lightest of purchases. The Anglican Church is beyond 2Km from the site.

5.1.5 highlights how few village facilities are beyond 800m practical walking distance from the site. The Post Office distance appears not to be the distance to the current Post Office which is now about 1500m from the site.

5.1.8 Linkage with other village pedestrian infrastructure does not mitigate the effect of distances involved.

5.1.9 Linkage with other village pedestrian infrastructure does not mitigate the effect of distances involved, although the Toucan crossing will improve safety on Rampton road if implemented. Rampton Road is a busy road with some 700 vehicles (800 by 2020) passing the site entrances at substantial speeds in the morning rush hour.

5.2 While cycling opens up some more options, including access to the Guided Busway at Oakington, the small proportion of people willing or able to make 25 minute 5 Km cycle journeys (the Chartered Institute

for Highways & Transportation guideline for maximum distance cyclable comfortably by a reasonably fit person) is limited, as demonstrated by the relatively small number of commute journeys by Cottenham residents made by cycle.

5.3 appears completely unfounded. Future residents of the proposed development will not have good accessibility to services they might use daily or major employment locations without extensive use of a car. In addition, the nature of most Cambridge jobs precludes car-sharing.

6.2 The site is not well-served by public transport when its nearest bus stops, some 500m from the site centroid, are at the end of a bus route. Even after this discontinuity, the service only meanders to Cambridge City Centre. No improvements have been suggested

6.3.2 implies that Citi8 services still run beyond Cambridge City Centre – not true.

6.3.3 implies that Citi8 services still run beyond Cambridge City Centre – not true; a connection is required, adding considerably to the times required.

6.3.5 implies that Citi8 services still run beyond Cambridge City Centre – not true; a connection is required, deterring commuters.

6.3.6 implies that Citi8 services still run beyond Cambridge City Centre – not true; a connection is required to reach the railway station, deterring commuters.

6.4 Suggesting drivers access the Guided bus by parking at Longstanton is hardly a “desire line” when there are Park & Ride facilities within a shorter distance.

6.5.1 Waterbeach is beyond reasonable cycling distance and parking there is all but impossible after 8am on weekday mornings. Chartered Institution of Highways & Transportation advises that a distance of 5 miles is the limit for comfortable cycling by a reasonably fit person

6.6.3 Cambridge is beyond reasonable cycling distance and the Citi8 no longer reaches the station.

6.6 The site is not adequately served by public transport and no improvements have been suggested. In the recent Neighbourhood Plan survey, 63% of residents wanted to see improvements in public transport links to Cambridge with only 11% currently using the bus 4 or more times a week. Bus services run at 20 minute intervals and a shorter journey time to Cambridge was the single most-cited (78%) incentive to use bus services more. This issue is not sufficiently addressed by the Travel Plan.

5. At 7.1.2 of the new travel plan there is a proposal to add a cycle footpath between the accesses to the site and the junction with Lambs lane. This can not be accommodated with the narrow width of the path.

7.5 The Travel Plan target of a 2-way vehicle trip rate of 0.546 vehicles per hour per dwelling within 5 years appears ambitious if not impossible. Our own actual trip generation measurements, carried out by independent consultants, on two representative Cottenham estates in April this year and TRICS data suggest a figure between 0.7 and 0.8 is more appropriate for an estate of this size in Cottenham where vehicle ownership and dependency is higher than might be the case elsewhere. Increasing modal share of passenger transport, cycling and walking will be particularly challenging given the distance of the site from Cottenham’s facilities, cyclist and pedestrian safety issues, the limited public transport options and the nature of employment in Cambridge. More worrying is the proposal to set a baseline after measurement then reduce it by just 10%.

8.3.1 We have serious reservations about the ability of the use of historic data, some as much as 15 years old, in the TRICS database to properly represent future travel conditions for an affluent village in such close proximity to a hyper-growth city like Cambridge. The TRICS data derived from the David Wilson Homes (off Beach Road, now known as Racecourse View) situation demonstrates the inaccuracy of these database approaches to trip rate prediction in Cottenham and similar locations. AHA assume some 17 two-way vehicle trips will be generated by the 47 homes (equivalent to 0.36 trips per household per hour) whereas

real measurements (see **Appendix 1**) commissioned by independent consultants for Cottenham Parish Council for the similarly-located Brenda Gautrey Way estate measured some 73 two-way trips from the 108 houses feeding that junction (equivalent to 0.68 trips per household per hour). **Note that, to avoid effects of holidays and weather, valid traffic measurements have to be made only in April, May, June, September and October according to the Design Manual for Roads & Bridges.**

The use of Pelham Way as a baseline for measuring existing traffic flows (8.8.2.4 of Transport Assessment) is flawed as the housing in this area is in a different stage of maturity having been built in the 1970s. As such the age profile of the residents will generally be older than purchasers on a new estate that are likely to have a higher percentage of families with working members. A more valid comparison would be to assess the traffic from the Tenison Manor estate - newer estate and more compatible in size.

8.5 Background traffic growth ignores any potential traffic growth from Endurance and other proposed developments in the vicinity. The TRICS data derived from the David Wilson Homes situation demonstrates the inaccuracy of these database approaches to trip rate prediction in Cottenham and similar locations. AHA assume some 17 two-way vehicle trips will be generated by the 47 homes (equivalent to 0.36 trips per household per hour) whereas real measurements commissioned by independent consultants for Cottenham Parish Council for the similarly-located (although closer to the village core) Brenda Gautrey Way estate measured some 73 two-way trips from the 108 houses feeding that junction (equivalent to 0.68 trips per household per hour).

8.7.1 The modal split is likely to have changed since the 2011 census, particularly against the use of bus following the curtailment of the Citi 8 service at Cambridge city centre, forcing more people to use private car transport. The location of the site and its distance from core village facilities, combined with limited public transport options are likely to increase the proportion of such departures and arrivals that are made as single person car journeys.

8.8.1 We have serious reservations about the ability of the use of historic data, some as much as 15 years old, in the TRICS database to properly represent future travel conditions for an affluent village in such close proximity to a hyper-growth city like Cambridge. The TRICS data derived from the David Wilson Homes situation demonstrates the inaccuracy of these database approaches to trip rate prediction in Cottenham and similar locations. AHA assume some 17 two-way vehicle trips will be generated by the 47 homes (equivalent to 0.36 trips per household per hour) whereas real measurements commissioned by Cottenham Parish Council for the similarly-located Brenda Gautrey Way estate measured some 73 trips from the 108 houses feeding that junction (equivalent to 0.68 trips per household per hour).

8.8.2 The traffic generated by the proposed development will have a material effect on the local highway network for two reasons. The traffic likely to be generated will be around twice that suggested and more of that traffic, following the closure of direct access to the A14, will flow via Rampton Road and Histon Roads towards Cambridge.

8.10 We believe, following evidence from the Brenda Gautrey Way estate that traffic generation will exceed 150 two-way trips in the morning rush hour, a material addition to the 800 vehicles passing the site, saturating the Oakington Road junction and taking the traffic entering Histon Road well above 1,000 vehicles per hour.

10.3 When most Cottenham residents commute to work in or around Cambridge it is implausible that significant amounts of rush-hour travel can be converted to cycling or walking.

10.5 When most Cottenham residents commute to work in or around Cambridge it is implausible that significant amounts of rush-hour travel can be converted to cycling or walking.

The meandering nature and extended journey time of the Citi8 limit its value as an alternative to single-person car journeys

- Cottenham does not host a full 6th form; students travel to Impington or Cambridge

10.7 When most Cottenham residents commute to work in or around Cambridge it is implausible that significant amounts of rush-hour travel can be converted to cycling or walking.

- The meandering nature and extended journey time of the Citi8 limit its value as an alternative to single-person car journeys

10.8 When the existing road junctions appear to operate at capacity already it is inconceivable that adding some 150 vehicle trips in the morning rush hour will not saturate some or all of these junctions leading to serious congestion, pollution and safety hazards for everyone.

10.9 AHA's analysis is flawed and does not demonstrate that the proposed development is consistent with the sustainable development objectives of national and local planning guidance.