

FROM: Ian Gledhill **TO:** Arun District Council
FAO: Clare Potts

SUBJECT: P/140/16/OUT - Outline application for access only - mixed use development comprising of up to 400 dwellings, a care home with up to 70 beds, a Local Centre comprising up to 2000sqm of A1/A2/A3/D1/sui generis floorspace, provision of land for a 1FE primary school (with sufficient space to ensure that it is expandable to 2FE), provision of land for a scout hut, safeguarding of land to help link the site to the Pagham Harbour Cycle Route & other community uses including public open space & allotments with some matters reserved. This application is a departure from the Development plan

Land South of Summer Lane & West of, Pagham Road, Pagham, West Sussex

DATE OF SITE VISIT: 24th January 2017

RECOMMENDATION:

Advice	☐	Modification	☐	More Information	☒
Objection	☐	No Objection	☐	Refusal	☐

-
1. The application is supported by way of a Transport Assessment (TA), Stage One Road Safety Audit (RSA), and Framework Travel Plan (FTP).
 2. The application is also supported with an Addendum Transport Assessment (ATA). This looks at the cumulative capacity impacts of a number of proposed developments within the Pagham area. Comments are made separately on the ATA.
 3. The scope of the TA and ATA has been discussed with West Sussex County Council in its role as Local Highway Authority (LHA).

Access

4. The site is to be served by two vehicle accesses onto Pagham Road, which in this location is subject to a 30mph speed limit. Both accesses take the form of priority junctions with right turning lanes. As part of pre application discussions, the applicant was informed that a formal design audit would be required. This should cover in detail what standards and guidance have been applied to the design of the accesses. No such audit has been submitted. This would be necessary.
5. Notwithstanding the need for this audit, the following comments would be made regarding the accesses.
6. In light of the posted speed limit and recorded vehicle speeds, the starting point for the design of the vehicular accesses should be Manual for Streets (MfS and MfS 2). MfS 2 provides further recommendations as to where and when right turning lanes should be used. This suggests that where traffic flows are low that junctions without right turn lanes will often be able to cater for higher levels of turning traffic without resulting in significant congestion. Whilst further comments are made below in terms of highway capacity, it is apparent from the summary capacity outputs that the two proposed accesses would operate well within capacity with very little queuing or delays on the major or minor arms. On this basis, it is questioned whether the highway works (that is the provision of right turning lanes) as shown are necessary.

7. It is recommended that an access arrangement based on two simple priority junctions is assessed in terms of capacity (by undertaking a further PICADY model) and safety (by way of a Stage One Road Safety Audit). Providing it can be demonstrated that simple priority junction would function acceptably, the LHA would be supportive of the right turning lanes being removed.
8. Stopping sight distances/visibility from the proposed access points have been based on the wet weather 85th percentile vehicle speeds rather than the posted speed limit. The use of 85th percentile speeds is an accepted means of determining SSD's for existing roads rather than using the posted speed limit.
9. The results of the speed survey are included. It's unclear exactly where the survey was undertaken. This is especially relevant given that distance between the two accesses, and therefore whether speeds recorded in one location are relevant to another. Irrespective of this, significantly greater SSDs than the 49 metres shown can be achieved at the northern access. At the southern access, the alignment of the existing carriageway restricts visibility to the north, although a distance of 90 metres is still achievable. The SSDs at both access points are achievable entirely within the public highway and/or land under the control of the applicant. It is accepted that adequate visibility can be achieved onto Pagham Road from both accesses.
10. For pedestrians, a number of 1.5 metre wide uncontrolled refuge islands are proposed along Pagham Road. 1.5 metre wide refuges would be quite narrow and would not be of sufficient width to allow a person pushing a buggy to wait in the centre of the carriageway. 2 metre wide refuges should be provided. Buildouts would also be necessary within the parking lay-by on the west side of Pagham Road to ensure that pedestrians are not crossing between parked vehicles.
11. As a further observation, the majority of pedestrian movements from existing residential areas are expected to arrive from the north. The refuge shown adjacent to the northern site access is therefore not on the desire-line for pedestrians.
12. Given the mix of uses within the northern part of the development, there is the expectation that these would generate a significant number of pedestrian crossing demands. No assessment appears to be included within the TA of the potential number of pedestrian movements associated with these and therefore whether the crossing arrangements proposed are suitable. In these respects during pre-application discussions, the LHA advised that a controlled crossing may be more appropriate to serve the school, local centre, and the dwellings in the northern part of the development. The form of crossing provision for the northern part of the development should be revisited.
13. In summary, there are various matters relating to vehicle and pedestrian access arrangements that require further consideration and/or amendment.

Highway Capacity

14. The TA details the anticipated vehicular trip generation arising from the development and where this will impact upon the local highway network. Vehicle trip generation for all uses within the development has been based upon TRICS. TRICS is a large database containing traffic surveys of other completed developments. The database can be refined so as to use only those completed development comparable to that proposed. It should be noted that TRICS has been used to estimate trip generation from the permitted scheme of 90 units on

land north of Summer Lane. The use of TRICS is an accepted means of estimating vehicular traffic arising from new developments.

15. For the residential uses, the TRICS assessment assumes a 400 unit, 100% private market all house development. In reality, the development will include an element of affordable dwellings and apartments. It is recognised that private market units generate more movements than affordable or flatted units. It is considered that trip generation used within the assessment is robust.
16. With the exceptions of the care home and the uses in the local centre, the trip rates for the residential and non-residential uses have been agreed as part of pre-application discussions for the TA or Addendum TA.
17. For the care home, a different trip rate to that included within the current TA was agreed as part of pre application discussions. The trip rate within the current TA is though greater than that previously proposed. For the local centre, the pre application submission included a trip rate for a food retail superstore whereas the application includes a convenience store. This change results in a different TRICS category being applied. Even so the trip rate for the convenience store is accepted given that this uses comparable selection parameters to other uses proposed. For the local shops, a higher trip rate is used to that within the pre-application enquiry.
18. The number of vehicle movements generated by each use within the development is set out in table 6.1 of the TA. It's noted that the number of trips as stated within the table however don't add up to the totals at the bottom of the table. For reference table 6.1 is summarised below with the totals corrected.

AM Network Peak Hour

Use	Arrivals	Departures	Total
Houses (Northern and South Accesses)	(25 + 33) 58	(61 + 83) 144	202
Local Centre (Convenience Store)*	42	38	80
Local Centre (Local Shops)*	61	53	114
Care Home	5	3	8
Primary School (2FE)*	56	41	97
Totals	222	279	501

*without trip reduction

PM Network Peak Hour

Use	Arrivals	Departures	Total
Houses (Northern and South Accesses)	(51 + 69) 120	(30 + 41) 71	191
Local Centre (Convenience Store)*	57	54	111
Local Centre (Local Shops)*	50	89	141
Care Home	5	8	13
Primary School (2FE)*	15	16	31
Totals	247	238	485

*without trip reduction

19. Based upon the use of TRICS this proposal is anticipated to generate 501 movements (222 arrivals, 279 departures) in the AM network peak (8-9am) and 485 movements (247 arrivals, 238 departures) in the PM network peak (5-6pm).

20. The total number of trips generated in the AM and PM peaks should be viewed as a worst case. The LHA accept that the local centre and the primary school would generate relatively few new trips; these uses will simply provide a new destination and attract trips that would already be taking place. Trips to the local centre and school would in essence be diverted or transferred to this site instead of heading elsewhere. This would give rise to an increase in trips through junctions in the immediate vicinity of the site, but no increase would result on the wider network.
21. Whilst the proposed dwellings will generate entirely new trips, the trip rate for these will be for all journey purposes and not solely for employment reasons. Trips for education or retail purposes are therefore included within these. Local trips from new residents within the site would also more likely take place by non-motorised means with there being a degree of internalisation of trips.
22. The TA recognises this point and applies a 15% reduction to vehicle trips to the local centre and a 33% reduction to vehicle trips to the school. Whilst no justification is given to the percentages applied, that used for the local centre is potentially low. The school site, for example, is also likely to be required to meet demands from the development itself. The LHA consider the trip rates applied with these discounts to be overly robust with there being scope to reduce the trip rates applied. The following trip rates have been used within the capacity assessments.

AM Network Peak Hour

Use	Arrivals	Departures	Total
Houses (Northern and South Accesses)	(25 + 33) 58	(61 + 83) 144	202
Local Centre (Convenience Store)*	36	32	68
Local Centre (Local Shops)*	52	45	97
Care Home	5	3	8
Primary School (2FE)^	37	27	64
Totals	188	251	439

*with trip reduction

^with 33% trip reduction

PM Network Peak Hour

Use	Arrivals	Departures	Total
Houses (Northern and South Accesses)	(51 + 69) 120	(30 + 41) 71	191
Local Centre (Convenience Store)*	49	46	95
Local Centre (Local Shops)*	42	76	118
Care Home	5	8	13
Primary School (2FE)^	10	11	21
Totals	226	212	438

*with 15% trip reduction

^with 33% trip reduction

23. These movements have been distributed onto the local highway network using a variety of means. For the residential, care home, and primary school the methods applied are acceptable (these rely on the use of Census Location of Place of Work data for existing residents or estimates based upon the location of existing housing). For these uses, the majority of trips are routed to and from the north.
24. For the retail uses, trips are assigned by way of existing traffic flow patterns. This assumes 58% of trips would arrive/depart to the north and 42% to the south.

This method, and the resultant traffic flow splits, is at odds with the approach applied to the other trips. The LHA would expect the majority of trips to arrive and leave to the north. As recognised elsewhere in this report, it is acknowledged that new retail facilities generate very few new trips; these instead provide an alternate destination for people to travel to. The retail use will therefore generate additional movements through junctions in the immediate vicinity of the site but no new movements over the network as a whole.

25. It is recommended that the approach to the local centre traffic is revisited in light of the trip rates applied and in terms of the distribution methodology. The consequences of a revised approach may then subsequently present a more realistic impact on the network.
26. Whilst the approach to local centre traffic should be revisited, the increase in traffic flows has been identified for a number of junctions. Formal capacity junction assessments, utilising industry accepted techniques, have then been undertaken at junctions where increased flows of 30 or more vehicles are anticipated to arise as a consequence of this development.
27. The capacity assessments have been undertaken in various scenarios to determine conditions in a base year (2017) and to determine conditions in a future year (2022) without and with development. The future years assessments include consented developments (namely 90 dwellings at land north of Summer Lane (P/58/15) and 40 dwellings at 241 Pagham Road (P/125/14)) that have not yet commenced.
28. An appropriate traffic growth rate has also been applied to the base year surveys using TEMPRO, which uses data from the National Trip End Model, to determine future traffic growth. It's unclear if this future year traffic takes account of the growth proposed within the draft Arun District Council Local Plan. This should be clarified as it may influence the growth rate applied. For those junctions within Chichester District a different growth rate may be appropriate.
29. No specific consideration is given within the TA to the application for 300 dwellings at Sefter Road (P/134/16). The National Planning Practice Guidance recognises the importance of assessing the combined impact of developments. It goes on to state that, 'it is important to give appropriate consideration to the cumulative impacts arising from other committed development (i.e. development that is consented or allocated where there is a reasonable degree of certainty this will proceed within the next 3 years)'. Neither, Sefter Road or south of Summer Lane are allocated in any planning policy nor do either sites benefit from planning permission. There is consequently no strict requirement for the current application to assess the impact of other unpermitted/unallocated developments. The current application is however supported by way of an Addendum TA. This specifically considers the cumulative impact of four potential development sites in Pagham. Comments are provided separately on this within the cumulative assessment section.
30. Although there are matters to be addressed, from the capacity modelling outputs it is apparent that even with the development the significant majority of junctions on the local highway network would continue to operate well within theoretical capacity. Two junctions are forecast to operate close to or over capacity with the proposed development. Both of these junctions are though forecast to be close or over capacity without the inclusion of the development traffic. The additional impact of the development should be viewed against this.

31. The B2166/Lower Bognor Road priority junction is anticipated to be operating over capacity in the AM network peak hour. Queues are anticipated to increase by 12 vehicles in the AM peak but delays per vehicle by 103 seconds. In the PM peak, whilst the junction is nearing capacity, the development is only giving rise to increased queues of 4 vehicles although delays per vehicle will increase by 60 seconds. In checking the inputs, there appears to be some differences between the turning counts included in appendix 21 and those included in the assessment (these differences appear specifically in the 2022 AM and PM without development scenarios with lower flows used on certain arms).
32. Capacity issues are also forecast at the signalised junction of Rose Green Road/Gossamer Lane/Nyetimber Lane/Grosvenor Gardens. However further clarification is required over the inputs used within the modelling; the outputs provided within appendix 22 of the TA are incompletely and do not include the LinSig stages diagrams or the link input data tables. From the information that has been provided, it would also appear that the pedestrian phases have not been included. The summary outputs are therefore viewed with a degree of caution.
33. In summary, there are a various matters that require further information. A separate distribution drawing for the wider area should also be provided that includes south of Summer Lane development only traffic; at present the distribution diagrams include combined base and development traffic.

Accessibility by Sustainable Modes

34. The TA includes an assessment of services and facilities within walking and cycling distances. This assessment applies maximum walking and cycling distances (of 2km and 5km) as set out within current national guidance. Using these, it's apparent that there are a number of services within reasonable distance of the site. Due consideration should also be given to the uses proposed within the development that again will assist in meeting the needs of future residents.
35. Limited consideration is given to the nature of existing routes for walking and in particular cycling trips. For walking at least, the site lies adjacent to an existing residential area that includes a continuous series of footways that are lit. There will be a need for pedestrians to cross Pagham Road. The matter of provision and type of crossings has been included in the above assessment.
36. For cycling, there are no specific dedicated facilities available. Even so for trips to the east (towards Bognor Regis), cyclists would need to make use of existing 30mph, lit, predominantly residential carriageways that have very little change in gradients. For northbound journeys towards Chichester route choice is limited with only the B2166 Lagness Road as an option. Again no dedicated facilities are provided for cyclists although part of this route is signed as the South Coast Cycle Route. Traffic flows and speed limits are though high.
37. With respects to cycling towards Chichester, there is a WSCC aspiration to secure a route from Pagham to Chichester via Sildesham. Such a link would then achieve a route using lightly trafficked roads or off-road tracks. This route would use existing public rights of way nos. 100, 104, and 106. These are all footpaths at present and there legal status would need to be changed to bridleways to allow cycling. The surfacing on parts of the route would also need to be improved.
38. The development proposes to safeguard an element of this link. This length falls within land under the control of the applicant. Whilst the completion of the link would then require works that appear to lay outside the control of the applicant, it would still be desirable for the applicant to use all reasonable endeavours to secure upgrading of the whole route. In the event, that the applicant cannot

achieve the necessary landowner consents to undertake works, a contribution should be made to WSCC to allow them to pursue the delivery of this route.

39. In summary, whilst gradients are flat, traffic conditions may not be such to encourage cycle based trips amongst certain groups especially towards Chichester. Distance may also be a restricting factor with there being few services within 5km. Based upon distance and traffic conditions, the LHA consider that cycling would be a realistic option for trips towards Bognor Regis. The provision of an off-road route would further increase the potential for trips towards Chichester.
40. The site lies adjacent to the no.600 bus route. This provides a 20 minute Monday to Saturday day time frequency towards either Chichester or Bognor Regis. Services continue into the evening and on Sundays but at hourly intervals. The frequency and journey duration is such that the bus could realistically replace the use of the car for some trips to Chichester or Bognor Regis.
41. Given the nature of the bus service, the applicant should consider what infrastructure improvements could be delivered to further encourage the use of the bus. This could include real time information or improved passenger waiting facilities. The applicant should note that the LHA do not adopt bus shelters; any agreement on the provision and future maintenance of these should be made with the District or Parish Council.
42. A framework travel plan is provided within the TA. The submitted plan is light on details, particularly in connection with measures to encourage modal shift. This could include vouchers or discounts for residents for sustainable transport modes; the provision of information alone is not anticipated to generate the trip reductions referred to. It is a WSCC requirement for the 12 hour (7am to 7pm) vehicle trip rate to be reduced by 10%. The travel plan should also be monitored using TRICS Standard Assessment Methodology.
43. Paragraph 29 of the National Planning Policy Framework states that the transport system needs to be balance in favour of sustainable transport modes giving people a real choice about how they travel. Paragraph 35 goes on to advise that developments should be located and designed where practical to give priority to pedestrian and cycle movements, and have access to high quality public transport facilities. In principle, the LHA are satisfied that the location of the development would give future residents a realistic choice about how they choose to travel without there being a reliance upon the use of the private car.

Layout

44. The application form indicates that new adoptable highway is to be provided as part of this development. As only matters of access are to be approved at this stage, the layout plans are taken as indicative and subject to change as part of any reserved matters submission. The following observations would be made on the plan submitted,
- As part of the reserved matters, a plan showing the likely areas to be adopted should be provided.
 - A link for non-motorised road users should be provided to the permitted development on land north of Summer Lane. This should be conveniently located to provide as direct a link as possible to the proposed school/local centre.
 - In connection with the above point, an internal unsegregated cycle route should be provided between the northern and southern parts of the proposed development. This could simply involve the widening of the proposed footway shown within the development that runs parallel to Pagham Road. This link

should then provide an onward connection through to the permitted development on land north of Summer Lane.

- Parking for the various uses would need to be demonstrated as complying with the relevant parking standards and guidance. This should include the provision of adequate space to enable dropping off/picking up associated with the school.
- Where-ever possible private parking should be served from the ends of turning heads. This then deters parking from occurring within areas provided for turning.
- Footways should be provided onto Pagham Road alongside the two vehicular accesses. This may require additional lengths of footway along Pagham Road to connect to the proposed crossing points.
- Some form of traffic management should be provided along the access road adjacent to the school given the straight alignment.

Conclusion

45. There are a number of additional matters that require further information. In summary these are,

- Reconsider the proposed junction arrangement and investigate the removal of the right turning lanes.
- Consider and alter the pedestrian crossings across Pagham Road to the development. This may require the widening of the refuges shown or the provision of an alternative form of crossing to serve the local centre/northern residential development.
- Revise the approach (trip generation and distribution) applied to the modelling of the local centre traffic.
- Provide development only traffic flow diagrams.
- Revisit the TEMPRO growth and amend as necessary to suit housing and employment growth within the draft Arun Local Plan. And apply a suitable growth rate for junctions within Chichester District.
- Remodel the signalised junction at Rose Green Road/Gossamer Lane/Nyetimber Lane/Grosvenor Gardens to reflect the actual arrangement of this junction and provide the full LinSig modelling outputs.
- Identify what rights of way or public transport infrastructure improvements may be feasible.

Cumulative Impacts of Developments in Pagham

46. Notwithstanding the comments above, an Addendum TA has been provided in support of this application. This reviews the cumulative impact of the current application along with others at Seftor Road (280 dwellings, Hook Lane (300 dwellings, and a second site at Seftor Road (60 dwellings). Other uses are proposed on these developments, including schools and care homes. The ATA also includes the permitted developments on land north of Summer Lane (P/58/15) and 241 Pagham Road (P/125/15).

47. The LHA notes that none of the developments included within the AT form part of any wider allocations within any made local or neighbourhood plan. None of these sites, with the exception of P/58/15 and P/125/15 as yet benefit from planning permission. In light of these there is no requirement for the assessment to take the unallocated/unpermitted developments into account.

48. The scope of the ATA has been discussed with the LHA. Certain elements of this have been agreed, either as part of the discussion for the TA covering the south of Summer Lane site or as part of the current ATA. There are elements of the ATA however that do not accord with the request of the LHA. This includes,

49. The need to undertake a future year assessment based upon the horizon year of the Local Plan (2031). The ATA extends only as far as 2027 at present.

- A requirement to include a future year scenario using all growth planned over the Local Plan period. At present, scenarios are included that account for a base year (without the proposed development) and a with the Pagham developments scenario. Whilst these scenarios are accepted, a further all LP development should be provided. This will then specifically demonstrate what the impact of the Pagham developments are against that included in the LP and background traffic growth.
- Linked to the above, the TEMPRO growth rate should be based upon the LP with alternative assumptions applied to ensure no double counting of the Pagham sites (either proposed or permitted).
- Appropriate TEMPRO growth rates should be applied for those junctions within Chichester District.
- As noted for the review of the TA for Summer Lane, certain aspects of the development (most notably those included in the local centre and the school) over-estimate trip generation over the wider network. These aspects are perhaps overly robust. There is consequently scope to alter the approach applied to these.

50. Although there are elements of the ATA that need to be amended, the future year capacity assessment indicates that the majority of local junctions would operate within theoretical capacity in the future year with the proposed development. There are two junctions however where potential capacity issues may occur. These junctions are that of the B2166/Lower Bognor Road (a priority junction) and the traffic signals at Nyetimber Lane/Grosvenor Gardens.

51. It's acknowledged that both of these junctions are forecast to be operating over capacity in the future without accounting for the developments in Pagham. The proposed developments however increase queues and delays significantly during the peak period. The developments should therefore be identifying potential junction improvements and proportionately contributing towards the delivery of these.

52. The LHA acknowledge the benefit of the cumulative assessment. The details of this however need to be further refined and agreed.

Ian Gledhill
Strategic Planning