Doc No. SSE/13.1/a
Case Ref. 2032278
(replaces SSE/13/a)

Appeal by BAA Ltd and Stansted Airport Ltd following the refusal by Uttlesford District Council of planning application UTT/0717/06/FUL

Revised Proof of Evidence on behalf of Stop Stansted Expansion

Surface Access Issues with particular reference to roads

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18 September 2007

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1 INTRODUCTION

1.1 Personal details

1.1.1 My name is Ken McDonald and I appear at the Public Inquiry on behalf of Stop Stansted Expansion ('SSE') of which I am a member.

1.1.2 I was the joint author (with John Rhodes) of Chapter 10 of Volume 1 of the SSE response [CD/201] to Uttlesford District Council ('UDC') objecting to planning application UTT/0717/06/FUL dated 14 July 2006.

1.2 Qualifications and experience

1.2.1 I am a Fellow of the Institute of Chartered Accountants in England and Wales. I have lived in Stansted Mountfitchet for 26 years and been a frequent user of roads throughout Essex and Hertfordshire, both as a driver and a cyclist.

1.2.2 I was Financial Director of medium-sized businesses for over 20 years, and for much of that time also served as Company Secretary. In addition to my general management role, I regularly prepared or analysed statutory and management accounts, business forecasts, budgets and legal documents. I retired in 2002 and have since been heavily engaged in the Stop Stansted Expansion campaign. For the past two years one focus has been on surface access issues, particularly road.

2 SCOPE OF EVIDENCE

2.1 History of evidence

2.1.1 SSE's evidence on the surface access effects of the proposed development was originally set out in Volume 1 of SSE's response to UDC, July 2006, [CD/201] and also in paras 2.8 and 2.9 of Volume 3 of the SSE response to UDC dealing with additional information provided by BAA in September 2006 [CD/203].

2.1.2 That evidence was superseded by proofs of evidence SSE/13/a and SSE/14/a, which were supplemented by SSE/15/a. These proofs were submitted on 30 April 2007 and incorporated more recent information and contained further analysis than the responses to UDC. In April 2007 BAA published an Addendum to its Environmental Statement [CD/14.1]. There was insufficient time to fully digest and analyse that document, so comments within our April proofs were somewhat cursory.

2.1.3 On 31 July 2007 BAA published an Addendum Update [CD/14.2] and also a 'Response to Joint Position Statement of Essex and Hertfordshire County Councils' [CD/326]. These later documents addressed a number of issues raised by Essex and Hertfordshire County Councils.

2.1.4 BAA's July 2007 documents failed to address issues raised by SSE. We continued to press some of these points and, on 14 September 2007, BAA

published 'Response to SSE Questions'[1], an accompanying Technical Note[2] and Figures 1 and 2.[3]

2.1.5 SSE has produced Updated Proofs (SSE/13.1, SSE/14.1 and SSE/15.1) which include consideration of BAA's April 2007 and June 2007 documents and initial reaction to BAA's September 2007 documents. This proof also considers other material which has arisen in recent months.

2.2 Further evidence

2.2.1 We may wish to comment further during the Inquiry after further consideration of BAA's September 2007 documents.

2.3 Significance of later BAA evidence and 35mppa offer

2.3.1 There is a real danger that BAA's subsequent documents divert attention from Environmental Statement Volume 11 (also referred to as 'ES Vol 11', 'Transport Assessment' or 'TA') and muddy the waters, but we draw attention to Addendum Update page vii, fourth paragraph, which states:

'The results of the tests presented in this Addendum indicate some small variability around the forecasts presented in the TA but none that are significant, in that none change the assessments made, the measures proposed or the solutions recommended in the TA.'

2.3.2 BAA's 14 September 2007 Technical Note concludes:

'. . . there are no changes to the conclusions reached in the Transport Assessment Addendum Update as a result of undertaking this sensitivity test.'

2.3.3 Whilst BAA has 'offered' a 35mppa cap on passenger numbers, the Appeal remains as seeking complete removal of the passenger cap. BAA has also made it clear that no guarantee will be given that 35mppa will be final.

2.3.4 Our evidence focuses primarily on ES Vol 11 [CD/14], BAA's substantive assessment, and also considers the distinct possibility that passenger volumes above 35mppa could be achieved on one runway.

3 KEY ISSUES

We have reviewed the Environmental Statement against a number of criteria, including the following:

3.1 Need to look beyond 2014

3.1.1 BAA is presenting this planning application as a proposal that would enable Stansted to handle 'about 35mppa' in 2014 and at most 40mppa. However, as we have shown in Proof of Evidence SSE/4/a, the reality is that, if the application as submitted were to be approved, Stansted would be capable of handling 45mppa by 2021, increasing to about 50mppa in 2030.

[1] 'Response to SSE Questions raised on 6 September 2007'.
[2] Halcrow: Technical Note – SSE Sensitivity Test, 14 September 2007
[3] Figure 1 – SSE Sensitivity Test – AM; Figure 2 – SSE Sensitivity Test – PM.

3.2 The scale of the surface access challenge

3.2.1 If this planning application were to be approved, the surface access implications for Stansted would be of a similar magnitude as those facing Heathrow today. (At Heathrow, a hub airport, 35% of passengers in 2005 were transfer passengers, i.e. not requiring surface access).[4] It is vital to recognize the scale of the surface access challenge which Stansted would face if the runway were ever to be used to its full capacity. Heathrow is served from central London by London Underground, a 15-minute dedicated Heathrow Express rail service and a stopping rail service, whereas Stansted is served only by a 45-50 minute rail connection from Liverpool Street – a service which is shared with local commuters. (In addition, a new rail service, 'Airtrack', backed by BAA, is planned for Heathrow by 2013-2015, connecting Staines to Heathrow and providing direct rail access to Heathrow for passengers from Waterloo, Guildford and Reading.)

3.2.2 Another way of putting the surface access challenge into context is to recognise that the 10mppa expansion proposed by BAA (based on its offer of a 35mppa cap) is greater than the current passenger throughput of both Luton Airport (9.4mppa in 2006) and Birmingham Airport (9.1mppa in 2006) – which are the UK's fifth and sixth busiest airports, respectively.

3.3 Need to learn from past under-forecasting and under-investment

3.3.1 Historically, BAA surface access modelling studies have consistently underestimated the impacts, and this has resulted in significant under-investment in infrastructure, particularly rail infrastructure. The chronic road congestion and traffic pollution around Heathrow today – despite its London Underground and rail connections – are the result of a lack of proper planning and investment in the past. It would be inexcusable if the same mistakes were made in relation to Stansted.

3.3.2 Similarly, Junction 8 of the M11 was regularly gridlocked as Stansted expanded before corrective action was taken.

3.3.3 It is important to recognise that congestion has an economic cost as well as an environmental cost. In the same way that the DfT applied an hourly value to air passengers 'time' when estimating the economic benefits of airport expansion, a value applies to the time lost by road and rail users as a result of congestion.

3.4 Cannot be viewed in isolation

3.4.1 The effect of the proposed airport expansion on road and rail cannot be viewed in isolation. The Sustainability Appraisal Report (non-technical summary) of the draft East of England Plan[5] comments on transport capacity in the Stansted/M11 and Harlow sub-region:

> *'A number of routes in the sub-region have existing heavy traffic flows. The sub-region has many transport problems, including capacity of rail links, poor quality of east-west rail links and localised areas of congestion.*

[4] CAA Annual Passenger Survey Report, 2005 [CD/212]: Heathrow handled 66.8m passengers of whom 43.7m (65%) originated or terminated at Heathrow; Stansted handled 21.6m passengers of whom 19.2m (88%) originated or terminated at Stansted. Stansted potential throughput of 50mppa x surface access 88% = 44mppa.

[5] East of England Plan Non-technical Summary of the Sustainability Report, 2004, page 8, Table 3.1h [CD/310].

Public transport links are poor in this area and will need substantial improvement to accommodate growth.'

3.5 Need to address Government policy

3.5.1 It is not sufficient for this major planning application to claim that its impact on road transport will be only a minor worsening of what is projected to happen because of a general growth in road transport. There should be a demonstration of how BAA's proposal will **contribute** to the Government's transport policy objective of 'reducing the need to travel, especially by car' (PPG13, para 4.3) [CD/106]. The Environmental Statement is sadly lacking in tackling the challenge to move more people out of cars and onto trains.

3.5.2 Rail's modal share of passenger travel to and from the airport has been declining: 27.2% in 2001 to 25.3% in 2005.[6] This application appears to have no ambition to reverse this trend. It simply proposes running longer trains as demand increases with passenger numbers. This is not acceptable. If the Assessment were based on the kind of mode shift necessary to meet Government objectives, the impacts and the need for mitigation would be very different.

4 NATIONAL, REGIONAL AND LOCAL PLANNING POLICY CONTEXT

4.1 National policy

4.1.1 The Future of Air Transport White Paper ('ATWP') [CD/87] states the following:

'Local controls should operate ...to manage the environmental impact of aviation and airport development so that: ..surface access to airports is designed to help limit local environmental impacts.' (para 3.6)

and

' ...a balanced approach is required which ... seeks to reduce and minimise the impacts of airports on those who live nearby, and on the natural environment.' [7]

The only interpretation that we can put on these two statements is that airport-related road traffic should be minimised.

4.1.2 The 1998 Transport White Paper 'A New Deal for Transport: Better for Everyone' [CD/129] sets down a policy framework to 'reduce road traffic growth' and 'respond to the challenge of climate change.' [8] It specifically addresses the surface access issue at airports:

'As managers of some of the nation's largest public transport interchanges, airport operators will be well placed to make a positive contribution to integration. We will therefore expect airport operators to be partners in implementing surface transport initiatives to improve the quality of the public transport journey to their airports ...The needs of surface access to airports should be considered as part of the wider transport strategy for the local area. Airport-related transport issues must

[6] BAA Environmental Statement, Volume 11, Table 4.1.[CD/14].
[7] ATWP, Executive Summary.
[8] 'A New Deal for Transport: Better for Everyone', DTLR, 1998, Chapter 2, p20. [CD/129].

be integrated with, not divorced from, local transport problems and opportunities.' '[9]

4.1.3 The Transport White Paper also sets down Government policy on how improvements to airport surface access should be funded:

'- from the aviation industry - where a scheme is viable or there are wider benefits to the industry;

- for airports to levy a surcharge on car parking charges.

With both options we would expect the proceeds to be applied to public transport improvements or measures to mitigate the undesirable impacts of road traffic to and from the airport.' [10]

4.1.4 The emphasis throughout the Transport White Paper is upon reducing road traffic and increasing the proportion of journeys made by public transport. The clear preference is for rail-based rather than road-based public transport.

4.1.5 Similarly, the ATWP states that 'a balanced approach is required which seeks to reduce and minimise the impacts of airports on those who live nearby'[11] and advocates local controls to ensure that 'surface access to airports is designed to help limit local environmental impacts'.[12] In these regards, transporting a higher proportion of passengers to and from the airport by rail is clearly preferable to an endless stream of coaches.

4.2 Regional policy

4.2.1 The Draft East of England Plan mirrors the national policy context. The first objective of Policy T1: Regional Transport Strategy Objectives and Outcomes is: 'to manage travel behaviour and the demand for transport with the aim of reducing the rate of road traffic growth and ensuring the road transport sector makes an appropriate contribution to the required reduction in greenhouse gas emissions'.[13]

4.3 District policy

4.3.1 The Uttlesford Local Plan [CD/57] states as its first general planning policy (Policy GEN1 – Access):

'Development will only be permitted if it meets all of the following criteria: (a)...(e) The development encourages movement by means other than driving a car.'

4.4 Some way to go to meet policy objectives

4.4.1 In 2005, 74.3% of Stansted's passengers travelled to/from the airport by road (60.4% by car/taxi and 13.9% by bus/coach) and only 25.3% by rail[14]. For airport employees the position is even worse, with only 9.1% travelling by bus or coach

[9] Ibid, Chapter 3, p71.
[10] Ibid, Chapter 3, p72.
[11] ATWP, Executive Summary, pages 9-10.
[12] Ibid, para 3.6.
[13] [CD/76] East of England Plan, Secretary of State's Proposed Changes, Government Office for the East of England, Dec 2006: Part 2: Modified Text of RSS incorporating Proposed Changes, page 133.
[14] BAA Environmental Statement, Volume 11, Table 4.1.[CD/14].

and only 4.9% by rail.[15] Quite apart from the increase in the absolute scale of Stansted which BAA is proposing, we are also looking at an increased proportion of airport users travelling by road. The inconsistencies with relevant planning policies hardly need explaining.

5 PLANNING BASED ON UNRELIABLE FORECASTS

5.1 Unreliability of BAA's forecasts

5.1.1 The Surface Access volume of the Environmental Statement (ES Vol 11) [CD/14] fails to adequately test the impacts of the proposal, mainly because it is founded on unreliable forecasts.

5.1.2 The Environmental Statement tells only part of the story. The information is often incomplete or misleading. Consequently, the assessment of impact and the need for mitigation are unreliable. The document seems to consistently seek to represent BAA's share of responsibility for the cumulative consequences of its past actions and future proposals as minimal, and in so doing all too frequently dismisses the consequences of further growth as being negligible. First hand experience of the airport's impact from the quadrupling of passengers over the last ten years, and the very real potential for a further doubling over the next twenty, even on one runway, make such throwaway dismissals hard to believe.

5.1.3 Practically all expressions of growth are focused on just part of that growth, the slice between 25mppa and 35mppa. The baseline of 25mppa is not even an extrapolation from today, but a kind of 'worst-case' scenario if the passenger limit of 25mppa were not removed. The most frequently used 35mppa picture is the 'enhanced' one, with projected benefits from a number of potential additional public transport facilities. The Environmental Statement therefore does not give the full impact against the current level of activity, ignores the very real potential for passengers to grow beyond 40mppa and assumes all interventions are implemented in due time.

5.1.4 The appearance of occasional so-called 'sensitivity' tests for 40mppa, for 35mppa + 15%, and most recently the so-called 'SSE sensitivity test' imply that those levels are beyond what can reasonably be expected, but that is not so. In particular, the 'SSE sensitivity test' merely seeks to correct the unrealistic assumptions for transfer passengers and passenger origins and destinations, thereby establishing a more meaningful baseline case at 2014. There is no testing for variations from those more realistic baseline assumptions or for errors in forecasting.

5.1.5 The 2003 ATWP [CD87] states that up to 46mppa could be handled on a possible second runway at Stansted[16], and this number could surely be handled on Stansted's single runway. Gatwick acknowledges capacity of 45mppa on its existing runway and the indications for Heathrow are that about 106mppa could be handled on two runways if mixed mode were to be permitted. Our own modelling shows that 50mppa could eventually be handled on the Stansted runway. BAA's projections should recognise this and consider 45mppa to be the base case, with a more realistic 'sensitivity' test at 50mppa. The focus of attention on a 40% growth between a worst-case 25mppa and a best-case 35mppa gives a totally false impression.

[15] Ibid, Table 4.6.
[16] ATWP, para 11.27, p114 [CD/87].

5.1.6 Simple arithmetic errors cast doubt on the general reliability of forecast impacts. ES Vol 11, paras 8.2.6 to 8.2.9 and the following Tables 8.2 to 8.5 show forecast 'Air Passenger Travel Demand' for an average September weekday for each case, analysed by hour. The sum of the three categories (cars and taxis, Stansted Express and Other PT) falls short of the daily totals in para 6.3.6 and in Table 17 of Volume 16: Air Traffic Data [CD/19]. For example, the 2014 25mppa case in Table 8.2 gives 37,602 + 16,923 + 10,569 = 65,094, yet the total should be 73,120 as stated in ES Volume 16 para 6.3.6. No explanation is given for this shortfall and there appears to be no correction within the Addendum Update. Similarly, the 2014 35mppa case in Table 8.3 gives 46,346 + 20,169 + 13,274 = 79,789, yet the total should be 89,540. These simple arithmetic errors cast doubt on the general reliability of forecast impacts.

5.1.7 There is generally a lack of clear comparison of forecasts with historical values, so it is difficult to apply simple tests to the reality of forecasts. Such tests are also made difficult by a lack of consistency in the units of measurement, with a lack of audit trail between them.

5.1.8 The lack of visible audit trail between various forecasts in the Environmental Statement and Addendum Update makes it generally impossible to carry out reasonability checks. There are no reconciliations between passenger and employee numbers and vehicle numbers; or between annual, daily and peak flows of people or vehicles. One particular attempted reasonability test – for vehicle occupancy - is described in paragraph, 5.1.25.

5.1.9 Even within BAA's 40% growth scenario (from 25mppa to 35mppa), the apportionment of growth has been unreasonably skewed towards elements that would cause least stress to surface access infrastructure. There are a number of questionable basic assumptions which, taken together, create a very unstable platform upon which many projections are then built. Four particular assumptions contribute to this concern:

- The baseline of 25mppa is very close to a 'worst-case' scenario if the passenger limit of 25mppa were not removed.
- BAA focuses upon 35mppa as the maximum number of passenger movements, whereas 45mppa is likely by 2021 and 50mppa by 2030.
- BAA projects that the number of transfer passengers will decline (compared to 2004) in the 25mppa scenario but grow very considerably in the 35mppa scenario.
- BAA asserts that the number of passengers travelling to and from London will grow far more slowly than those travelling from other areas. This is contrary to the historic trend and also conflicts with its projection that inbound foreign tourists will grow at a disproportionately fast rate. It also seems at odds with BAA's assertion that a lack of capacity at Heathrow and Gatwick will result in passengers who would otherwise use these airports 'spilling over' to Stansted.

One cannot resist forming the impression that BAA's surface access projections have been developed so as to minimise the perceived impacts.

5.1.10 Unsurprisingly, BAA's chosen assumptions have the effect of increasing surface access demand for the 25mppa scenario and minimising the increase in surface access demand for the 35mppa scenario. By narrowing the differential in this way, BAA seeks to claim that the effect of approving 35mppa has minimal road and rail implications. The combination of these factors leads to a significant under-statement of demand for surface transport between Stansted and London, both in

numbers and in proportion to non-airport traffic. The effect is to divert attention away from surface transport infrastructure which is already severely stretched and will almost certainly require expensive upgrading.

5.1.11 It should also be noted that, in the view of the Stansted Airlines Consultative Committee, the number of transfer passengers will decline both in percentage and absolute terms.[17] If the ACC is correct, then an additional 10mppa passenger throughput at Stansted would mean at least an additional 10mppa requiring surface access in the 35mppa case compared with the 25mppa case. However, BAA projects only an additional 6.7mppa requiring surface access[18].

5.1.12 We are not competent to comment specifically on the complex suite of computer models used to project surface access needs, but we have serious concerns regarding the data and assumptions that have been used in those models. Our concern has been heightened by the wide variation in results that were published in the Environmental Statement and later in the Addendum and Addendum Update, without a clear explanation for why most of those changes have occurred. It was only the appearance of Table 2.5 in the Addendum that alerted us to the significance of vehicle occupancy. Subsequent review of that one assumption (see para 5.1.25 below) illustrated the potential for significant consequences from other modelling assumptions that still remain hidden.

5.1.13 There is no airport Masterplan (as required by the 2003 ATWP and by UDC's Scoping Opinion), so the full context of BAA's proposal is not clear. The statement in the Planning Application that it is not part of a bigger plan is contrary to indications given by BAA in respect of a proposed second runway, and at variance with the fact that specific anticipated additional developments are outlined in the proposal. The Surface Access assessment includes several references to on-airport facilities that are likely to be required to satisfy 35mppa (let alone 45mppa or 50mppa) and which do not yet have planning approval. Appendix A.44 refers to two additional hotels, a restaurant and an increase from four to six car rental bases, yet planning permission for these is not being sought. A.53 lists these again, together with various car park extensions, all of which would require planning permission. The status of these additional items is unclear, particularly in the absence of an airport Masterplan. The application should not be considered in isolation without a clear picture of the potential ultimate scale of development and its surface access consequences. In the context of the long lead times traditionally associated with provision of road and rail infrastructure, planning needs to be more far sighted and not dependent on creeping incrementalism. BAA openly states that it plans to have a second runway operational by 2015. On this basis, construction would take place from 2011/12 onwards and this would generate a very large amount of traffic on local roads as well as giving rise to traffic disruption, road closures and diversions. And yet none of this is taken account of in BAA's traffic projections for 2014.

5.1.14 The Environmental Statement focuses primarily on 2014, yet para 2.5.18 confirms that the DTLR/DfT requirement is for consideration of impacts for 15 years beyond opening (i.e. approx 2023). The July 2007 Addendum Update has filled some of the forecasting gaps for 2023, but these are limited to 35mppa and have less explanation than for 2014. For example, in ES Vol 11, Appendices Q and R, M11 airport-related traffic is shown as reducing between 2014 and 2023, but there seems to be no explanation. There are no rail projections beyond 2014 or beyond 35mppa. The application cannot be properly considered without taking into

[17] Proof of Evidence by Louise Congdon on behalf of Stansted ACC, [ACC/21], para 5.63.
[18] ES Vol 11, Table 6.2, page 83.

account the full consequences in the medium and long term. The 2021 regional planning horizon and the 2030 planning horizon for the ATWP are also very material milestones for planning purposes.

5.1.15 Forecast airport-related growth is frequently expressed as a percentage of total traffic on a particular route, usually a low percentage. However, this fails to give a true impression of the scale of impact. An increase of 3% on a quiet route is quite different to a 3% increase on a route that is already operating close to capacity. BAA should provide an analysis which expresses the increases in traffic densities as a percentage of the available capacity so that the key impacts at the margin can be properly assessed.

5.1.16 BAA projections assume that the proportion of airport passengers who are transferring to other flights (and thus making no demand on road and rail services) reduces from 12.5% in 2004 to 10.0% in 2014 at 25mppa. However, the proportion then increases to 16.6% under the 35mppa scenario for 2014. These assumptions are not supported by evidence to explain why transfer passengers should decline sharply between now and 2014 under the 25mppa scenario but rise sharply under the 35mppa scenario.

5.1.17 One of the few direct comparisons of actual figures with forecasts is in ES Vol 11 paras 6.3.5 and 6.3.6 and Table 6.2, but the percentages quoted in para 6.3.6 cannot be taken at face value and, indeed, are misleading. The increase in total passengers from 20.9mppa in 2004 to 35mppa in 2014 is 67%. That 67% growth rate is not declared anywhere here and it is not easy to calculate. Within that overall 67%, and without visibility or explanation, a much higher rate of growth (124%) is attributed to transfer passengers, leaving 'only' the increase of 59% shown in Table 6.2 for non-transfer passengers (i.e. those requiring surface access to the airport). Then, within that 59% growth of surface access passengers, a higher rate of growth is (invisibly) attributed to travellers outside the para 6.3.6 illustrative sample of September midweek passengers, leaving 'only' 55% growth in the September midweek passengers. As if that were not enough manipulation, the growth in para 6.3.6 is not expressed even as 55%, but as a 27% increase from 2004 to 2014 in the 25mppa case and a further increase of 22% in the 35mppa case. So, as if by magic, an overall passenger increase of 67% is expressed as 'a further 22% increase'. The perception of the scale of increase as given by the quoted percentages appears to be deliberately designed to mislead.

5.1.18 BAA argues there will be an acute shortage of airport capacity in the south east in 2014 – and, indeed, through to 2030 – and that this will result in demand 'spilling over' from Heathrow and Gatwick to Stansted. At Stansted one would therefore expect to see a disproportionately large increase in passenger traffic to and from London and the rest of the south east. However, BAA's projections show a disproportionately small increase from London and the rest of the south east. This is simply not credible.

5.1.19 Table 6.2 contains BAA's forecasts of passenger growth from 2004 to 35mppa in 2014, analysed by place of origin or destination. There is great variation in the assumed rates of growth from different areas. This variation is contrary to the pattern of growth in recent years as reported in para 4.2.3 and Table 4.2. These assumptions have a critical impact on key surface access forecasts. The numbers of passengers on surface access routes currently under greatest stress are generally forecast to grow much less than those from areas where there is greater capacity.

5.1.20 In response to the Scoping Opinion – the final item under Surface Access – BAA promised to look at sensitivities for the day of the week. Most assessments relate to September midweek. There is no evidence of findings related to other times of the year or week. Stansted Airport is 10%-12% busier in August than in September and therefore airport-related road traffic is about 10%-12% higher. Although the opposite is generally true in relation to non-airport traffic, this may not be the case in respect of the smaller local roads heavily used by airport-related traffic.

5.1.21 The ES Vol 11 Addendum Update purports to address questioning by UDC of the diverse rates of growth in passenger origins, but the sensitivity test retains most of the surprising features of the original forecast rates of growth for transfer passengers and passenger origins and destinations.

5.1.22 The rates of growth can more clearly be summarised as follows, showing mppa in 2004 [from Table 6.2] and forecast growth rates over nine years to 2014, firstly derived from Table 6.2 and secondly derived from the 'SH&E sensitivity test' from Addendum Table B.1:

2004 actual	Table 6.2	Table B.1	
2.6mppa	33%	37%	Central London
1.5mppa	39%	43%	South East – south of Thames
4.2mppa	49%	55%	South East – north of Thames
3.0mppa	50%	55%	London, apart from Central & NE
2.2mppa	62%	68%	London - North East
2.5mppa	86%	58%	Rest of UK
2.3mppa	104%	105%	East Anglia (Suffolk, Norfolk, Cambs)
18.3mppa	59%	59%	Total passengers requiring surface access
2.6mppa	124%	124%	Transfer passengers
20.9mppa	**67%**	**67%**	**All passengers**

5.1.23 The forecast rates of growth for the areas which would place least strain on road and rail (East Anglia at 104% and transfer passengers at 124%) seem quite inconsistent with the forecast 33% growth for central London - which would place greatest pressure on the London – Stansted rail link. Table 4.2 on page 28 of ES Vol 11 shows an analysis over the past six years of passengers' surface origins and there is nothing to suggest that rates of growth are about to dramatically diverge. Indeed, the central London share, rather than decline, has actually increased in each of the past two years (2004 and 2005).

5.1.24 If growth in passenger demand were to be evenly spread, as indicated by past trends, the 35mppa forecasts would generate almost a million extra passenger movements per annum to or from central London in 2014 over and above BAA's forecast. This is a significant number, especially given the heavy loading already on this transport corridor. Table 1, below, illustrates the potential impact on surface access between Stansted and London if growth is achieved evenly. Our long term projection of 50mppa in 2030 suggests that there would be a total of 18.64m passenger journeys between Stansted and London in 2030, compared with 7.79m in 2004 and 11.50m forecast in ES Vol 11 at 35mppa. This would impose an enormous additional unplanned burden on road and rail infrastructure.

Table 1: Passenger origins/destinations

	All Passengers	Central London	All London
2004 Actual mppa	20.90	2.63	7.79
BAA 35mppa projection	35.00	3.49	11.50
Growth	67.5%	32.7%	47.6%
Alternative scenarios with even passenger growth across origins/destinations			
35mppa	35.0	4.40	13.05
40mppa	40.0	5.03	14.91
45mppa	45.0	5.66	16.77
50mppa	50.0	6.29	18.64

Source: BAA ES Vol 11, Table 6.2 or para 4.2.1.

5.1.25 Less than two working days before this proof of evidence was required to be submitted, BAA produced a limited 'SSE sensitivity test'. The results of the test are not clearly presented, but it did confirm that **if** the TA growth rates for transfer passengers and different places of origin and destination were replaced by a consistent rate of growth, then forecast annual passenger movements to and from central London would increase by almost 1 million, even at the 35mppa level.

5.1.26 In forecasting airport-related road traffic, BAA has assumed levels of vehicle occupancy whose basis is unclear. We felt that BAA's response[19] to questioning on Addendum para 2.7.1 and Table 2.5 by Essex County Council ('ECC') and Hertfordshire County Council ('HCC') was inadequate and we also pressed for an explanation of BAA's calculations. BAA's response on 14 September[20] was also inadequate, so we have sought to make our own estimate, using what BAA claim to be the source data from CAA. Our calculation is included as Annex 1. BAA claim to have based their calculation on the three year period 2002 to 2004. We have sought to check this, and also check against the most recent data – for 2005. Our results suggest that BAA may have significantly understated the number of additional car and taxi movements that would be generated by expansion. It is not apparent whether the suspect ratios have been applied to all future passenger numbers or just to the 10 million increase. Even if it affected only the latter, then the impact could be an understatement of car journeys by 1 million a year. If the modelling assumption is wrong, this would make a significant difference to the loading of many roads, particularly when taken together with the understatement

[19] [CD/326].
[20] 'Response to SSE Questions raised on 6 September 2007'.

caused by unrealistic assumptions of transfer passengers and passenger origins and destinations.

5.1.27 ES Vol 11 Chapter 6 explains the sophisticated modelling that has generated the surface traffic forecasts and impacts, yet the modelling is based on questionable assumptions that have been queried in the previous paragraphs. Some data is several years old and the end point for the forecasts is only 2014. No matter how sophisticated the computer model, the input data and assumptions need to be up-to-date and reliable.

5.1.28 The objective of the tests in the Addendum was to consider the impact of changes to the Draft East of England Plan [CD/74] and to take account of the views of UDC's consultants, SH&E. These two factors appear to have had minimal consequences, yet a number of changes in assumptions and modelling have caused substantial variations in output compared with the original forecasts. For example, Stansted Express mode share is down around 4 percentage points[21], with peak time travel down around 20%[22], whilst M11 and A120 traffic flows are down around 10%.[23] Para 6.5.2 states that 'there are larger differences in non-airport trips which arise from new planning data, revised network assumptions and model updates'. The changes are so significant that they cast doubt on the validity of both the original forecast and this recent test. The changes that follow from relatively minor adjustments to the assumptions seem to outweigh the changes predicted for massive passenger growth. That a few 'minor' adjustments to the assumptions can have such a major effect when compared with what was previously held out to be a robust forecast reduces the level of confidence.

5.1.29 We have been unable to find a statement of confidence level for any of the forecasting models. Given that there are several models working in sequence we would expect the confidence level of the end product to be the result of compounding each of the confidence levels in the sequence. For example, an end product that came from three models in sequence each with a 90% confidence level would have a confidence level of 90% x 90% x 90% = 73%; for three stages each at 80% the confidence level of the outcome would be 51%. Any sensitivity test should be based on a review of the worst outcome. We have not seen any evidence of this approach. BAA's response to our questioning on this subject[24] ended with the statement:

> *'It is often the case that specification errors are compensatory by the nature of the calibration processes. Also, it does not follow that the statistical imprecision in any one transport model would necessarily be compounded by the statistical imprecision in the subsequent model; again the effects could be compensatory.'*

Of course, the opposite possibility – that margins of error could be compounded – is equally likely! We are left with no reassurance about the level of confidence that can be placed in the modelling.

5.1.30 The many concerns expressed above, especially when taken together with BAA's past record of under-estimation, and the fact that BAA is seeking to minimise the contribution expected from it to fund the road and rail investment required to support its G1 application, reinforces the argument that BAA has understated the surface access implications of G1.

[21] Volume 11 Addendum [CD/14.1], para 3.2.3.
[22] Ibid, Table 3.2.
[23] Ibid, para 5.2.5 and Fig 5.1.
[24] 'Response to SSE Questions raised on 6 September 2007'.

5.2 Inadequacy of BAA's responses to UDC's Regulation 19 Notice

UDC Requirement 8: ***'Total increase in road vehicle mileage resulting from the development by mode.'***

5.2.1 BAA did not answer this question in its Regulation 19 response [CD/22] despite its relative simplicity. The road mode comprises car journeys (including hire car and taxis) and bus/coach journeys to and from the airport for air passengers, airport employees and other airport users. BAA should have provided a road vehicle mileage estimate for each of these mode shares for 2005 and projections for the 2014 'baseline' at 25mppa, for 2014 at 35mppa and also for the higher mppa throughputs which can reasonably be anticipated in 2021 and 2030. BAA has provided information only for the 'busy day' scenario and only to 2014.

5.2.2 BAA attempts to claim that there is a 'saving' in road vehicle mileage but can only make this claim by comparing, on the one hand, what would happen if 35mppa were permitted and there were **no** 'transport interventions' and, on the other hand, what would happen if 35mppa were permitted and there **were '**transport interventions', i.e. under the enhanced 35mppa case.

5.2.3 The first point to make here is that the claimed 'saving' is not only hypothetical but also relative, i.e. the difference between two projected 35mppa scenarios.

5.2.4 The second point to make is that the transport interventions as described appear to be of a relatively minor nature, mostly 'soft' measures. Hard measures such as park and ride, restricting on-site car parking provision for airport users and investment in rail infrastructure are either explicitly rejected or not considered. It is difficult to understand how significant reductions in car use can be anticipated on the basis of 'soft' measures alone.

5.2.5 The third and perhaps most important point is that there is no reason why the transport interventions that are proposed for the 35mppa 'enhanced' case should not also be applied to the 25mppa baseline for 2014. Indeed, as BAA points out, Government policy is to reduce car use and the policy states that airport operators are meant to play a full part in achieving this.[25] This is true regardless of whether the airport is to be handling 25mppa or 35mppa in 2014.

5.2.6 In short, all of the transport interventions that are proposed by BAA for the 35mppa 'enhanced' case, should already be part of BAA's plans for 25mppa (if not, why not?) and any comparison between the two should be on a like-for-like basis.

5.2.7 Turning to more detailed points, in para 2.5.7 of its response BAA refers to 'about 400,000' being the increase from row 3 to row 4 in Table 14. The increase is actually 478,200 (2,813,400 less 2,335,200).

5.2.8 In para 2.5.8 of its response, BAA claims that:

> *'This demonstrates that the proposed public transport improvements (rail, bus and coach) would deliver a 31% reduction in the potential growth in vehicle-km travelled as a result of growth between the 25mppa and 35mppa cases. This reduction demonstrates that the approach adopted accords with Government policy to promote more sustainable transport choices as set out in ATWP, ITWP and PPG13.'*

[25] 1998 Transport White Paper: 'A New Deal for Transport: Better for Everyone', Chapter 3, p71.

5.2.9 Not only is the 31% mathematically incorrect (131,200 is 27% of 478,200), but the whole basis for claiming a reduction is highly questionable. A selective choice of words and figures leads to an impression of improvement which is wholly unjustified. It is invalid to compare the 'enhanced' 35mppa scenario with the non-enhanced 25mppa scenario. This is to compare apples with oranges. Comparison of like with like shows an increase, not a decrease, in car and taxi mode share (from 58.9% at 25mppa to 60.1% at 35mppa (Tables 4.1 and 8.1 of ES Vol 11) and negligible change in employee car drivers from 79% to 78% (Tables 4.6 and 8.6 of ES Vol 11).

UDC Requirement 9: ***'Hourly road traffic data around local roads outside the airport for the 24 hour weekday and, separately, for weekends, for the baseline, 25mppa and 35mppa situations.'***

5.2.10 For the many reasons set out earlier, we attach no credibility whatsoever to Tables 15 - 24 provided by BAA in its Regulation 19 Response [CD/22].

5.2.11 We have major concerns in this area, not only in relation to the impact upon traffic congestion and local air quality, but also the wider issue of quality of life and the increasing problem of airport-related 'rat runs' along country lanes and through previously tranquil local villages, by day and by night.

5.3 Over-reliance on BAA's forecasts

5.3.1 A statement in Essex County Council's Local Transport Plan 2006-2011 [CD/86] is worth repeating. Para 4.84, in anticipation of this planning application from BAA, states:

> *'Serious concerns remain that there will be a repeat of the previous three phases of growth at Stansted which have each been based on forecasts and planning assumptions that later transpired to be so different in reality that the transport impacts were seriously misunderstood and not properly planned for.'*

5.3.2 Essex County Council ('ECC') expresses distrust of BAA's forecasts and concern for the consequences for surface access[26,27] and concern is also expressed by their consultants, both on BAA's past forecasting record[28] and regarding the forecast of passenger origins and destinations.[29]

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[26] Local Transport Plan 2006-2011, [CD/86], para 4.84, in anticipation of this planning application from BAA, states: 'Serious concerns remain that there will be a repeat of the previous three phases of growth at Stansted which have each been based on forecasts and planning assumptions that later transpired to be so different in reality that the transport impacts were seriously misunderstood and not properly planned for.'

[27] Essex County Council submission to UDC 4 October 2006 [CD/274 para 3.2] states that consultants SH&E, working for the two county and two district authorities, 'have not reviewed the surface access data for passengers or staff'. The paragraph goes on to say 'There is some uncertainty about the voracity (sic) of the BAA forecasts'.

[28] SH&E: Review of BAA Traffic Forecasts, Feb 2006 [CD/133], para 3.4 'Actual passenger throughput in 2005 was more than double that forecast by BAA in 1993, a difference of 11.4mppa. This does raise some credibility and reliability issues regarding BAA's traffic forecasting.'

[29] SH&E Review of BAA Traffic Forecasts, Feb 2006 [CD/133], para 3.48: 'The BAA forecasts for Stansted indicate changes in the pattern of passengers UK origin and destination that we find surprising.'

5.3.3 Hertfordshire County Council ('HCC') notes[30] that BAA forecasts a 40% increase in passengers, yet road and rail traffic will increase by only 19% – indicating a level of surprise that BAA was claiming such a small increase in surface access demand from such a large increase in passenger throughput.

5.3.4 ECC and HCC have each urged that the risk of understated forecasts be limited by imposing an absolute 35mppa cap and by certain infrastructure improvements. However, this does not address the issue of BAA's under-projection of the impacts at 35mppa or the risk that 35mppa may not be final.

5.4 Need to look beyond 35mppa and 2014

5.4.1 BAA's forecasts generally do not go beyond 2014. Given the usual timescales for provision of road and rail infrastructure, it is essential to plan further ahead. SSE estimates that, if this application were to be approved, surface access infrastructure would be needed to support 45mppa by 2021 and 50 mppa by 2030 on a single runway.

5.4.2 Even if a condition of 35mppa were to be set now, we could not take it as final. Inspector Eyre strongly recommended a 25mppa ultimate limit and the Government accepted this, yet here we are again. Given BAA's track record for coming back and asking for more, we must ensure that potential surface access problems are avoided by forward planning and timely investment.

6 FAILURE TO ADEQUATELY ADDRESS GOVERNMENT POLICY

6.1 Inadequacy of proposals to constrain the need to travel by car

6.1.1 Section 4 above cites policies that seek a modal shift away from the car and onto public transport, especially rail.

6.1.2 Government transport policy is misrepresented by focusing on the public transport mode share. Specifically, para 11.9.1 of ES Vol 11 refers to the Government's agenda of 'reducing the proportion of trips to the airport by car'. We note that no reference source has been cited for this assertion. In fact, Government policy is to reduce the need to travel, especially by road, and even more especially by car. Specifically in relation to airports, Government policy is 'to mitigate the undesirable impacts of road traffic to and from the airport'. Public transport is supported by Government but especially non-road (i.e. rail) modes. But, above all, Government policy – and the East of England regional transport policy – is very clearly focused on reducing the need to travel. Creating increased capacity to fly, and consequently increasing the need to travel to the airport, has a far greater impact on car use than minor adjustments to the mode share of that increased activity.

6.1.3 However, leaving aside the issue of air travel, the key point here is that BAA's focus on buses and coaches is an inadequate response to the Government and East of England Region policy agenda and an excuse to (once again) avoid long overdue investment in rail infrastructure. Providing the necessary rail infrastructure would require a substantial level of investment and BAA would be expected to meet a large part of the cost. However, people arriving by car – and using the airport's parking facilities – would generate substantial revenues for

[30] Hertfordshire County Council letter to UDC 22 September 2006 – Cabinet Report 11 Sep 2006 - paras 8.1 to 8.3 [CD/276].

BAA. (Our proof of evidence on economic issues [SSE/8/a] shows the importance of car park revenues to the Stansted business model.) Investment in rail infrastructure is long overdue even on the basis of the current scale of operations at Stansted.

6.1.4 There appears to be no direct comparison of past and future rail and bus/coach mode shares. The past is shown in CD/14 Table 4.1 with a split between Rail on one hand and Bus/Coach on the other, whilst the forecasts (for example Update page 13, Table 3.1) distinguish between Stansted Express on one hand and Other Public Transport on the other. This prevents any clear understanding or testing for reasonableness.

6.1.5 We note that assumptions for future bus, coach and rail fares have been based on DfT guidance, but we are concerned that forecasts for travel between Stansted and London may have been biased towards growth in bus and coach rather than rail. The July 2007 Response to Joint Position Statement [CD/326], page 46, para 2.3.1 refers to a 'tuning exercise' which appears to have forced the model to adopt low coach prices in response to short term market changes.

6.1.6 Meanwhile, BAA should be asked to provide data on bus and coach seat utilisation for the past five years as well as forward projections. We may find that this particular form of public transport is less environmentally friendly than we are being led to believe.

6.1.7 In July 2004 SSE published a paper entitled 'Towards a Lo-Car Strategy for Stansted Airport' [CD/264]. This set out a range of policy measures aimed at securing a significant modal shift to public transport for surface access to the airport. This paper received strong endorsement from the key local authorities[31] and the principles set down therein were almost universally supported, including at Ministerial level within the DfT.[32] Implementation of the 'Lo-Car' strategy requires a range of measures, including improvements to rail access, development of park-and-ride interchanges, restrictions on airport parking and introduction of an airport access or congestion levy. All these concepts are supported within the East of England Regional Transport Strategy [CD/68] and could make a significant contribution to the reduction of private car usage if given sufficiently high priority. It should not be necessary for progress to be dependent on the outcome of yet another application for increased airport passengers. Essex County Council wishes to fully evaluate the option of a Stansted Airport access levy and we understand that it is also keen to explore the option of workplace parking charges.

6.1.8 For the reasons explained earlier, it is not surprising that BAA is seeking to resist any policies that might discourage driving to, or parking at, the airport. However, the potential environmental mitigation benefits are too significant for these to be dismissed so swiftly. ES para 7.5 rejects a possible forecourt charge (although, curiously, BAA advocates exactly such a charge for G2[33]), doubling of parking charges or restricting parking spaces as being likely to increase car movements through a switch from park-and-fly to kiss-and-fly or taxi, with the consequent doubling of mileage and encouragement of off-airport fly-parking. ES para 7.6 and Appendix L dismiss the idea of a remote Park-and-Ride, say, at M11 J7 as not

[31] Uttlesford District Council (July 2004 & September 2004), East Herts District Council, Essex County Council (October 2004) Herts County Council (February 2005) and the East of England Regional Assembly (May 2005).
[32] Presented to DfT Aviation Minister Karen Buck and senior civil servants in November 2005 and 'commended' as being consistent with DfT transport policy and wider Government policy.
[33] BAA G2 Surface Access Consultation, February 2007.

commercially viable: 'No advantages of operating an off-airport facility have been identified'. These conclusions may have been driven by other considerations.

6.1.9 Since publishing our 'Lo-Car' strategy paper, three years ago, we have learned of new initiatives at airports in Europe and elsewhere which reinforce our opinion that there is considerable potential to create a less environmentally damaging 25mppa scenario for Stansted by 2014, based on international best practice (for example, CD/202, Section 6). BAA recognises there is scope for enhancing public transport mode share and has modelled the impact of some limited but welcome enhancements for 35mppa although it is not clear why these enhancements are not part of BAA's public transport strategy for 25mppa.

6.1.10 Notwithstanding the current BAA planning application, we believe there is very considerable scope to bear down on airport-related road traffic at Stansted. Between now and 2014, far from there being an increase in road traffic as BAA would wish us to believe if its application is not approved, a proactive approach based on international best practice could bring about a significant reduction.

6.2 Inadequacy of surface access strategy to address climate change

6.2.1 BAA's proposal will result in increased emissions and therefore be incompatible with Government policy on climate change. An indication of the scale of increased emissions is given by ES Vol 11 Table 14. This shows an estimated increase of 478,200 vehicle/kms **per day** between 25mppa and 35mppa.

7 POTENTIAL CONSEQUENCES

7.1 General

7.1.1 In a number of major respects the Environmental Statement has failed to test adequately the effects of the proposed expansion and has therefore failed to identify the true scale of impact. Where unacceptable impacts have been identified, the ES consistently seeks to minimise BAA's share of responsibility for the cumulative consequences of the airport's development. BAA's consultants therefore claim that there is either no need for mitigation or that only minor mitigation is necessary. In reality, however, the outlook is for serious detrimental impact on many surface access routes, including rail, major roads and minor roads.

7.1.2 Appendix A (and supporting narrative) of ES Vol 11 shows substantial new facilities, including car parks and additional road capacity within the airport, but does not show any meaningful investment to expand either rail access or road access into the airport. The only planned access improvements are slip roads firstly from the southbound M11 and secondly avoiding Priory Wood roundabout. These appear to be the same as conditions ROA1 and ROA2 imposed under UDC's 2003 planning approval for 25mppa – as required for that passenger level by the Highways Agency. The work was completed in December 2006. There appears to be no planned allowance to cater for the scale of change that would arise from a potential doubling of today's passengers by 2030.

7.1.3 Para 8.3 of the Environmental Statement forecasts travel patterns for airport employees. No significant change is forecast in mode share between 2005 and the various 25mppa and 35mppa options. The trend of recent years of steadily reducing car use is expected to halt because BAA initiatives will be outweighed by

an expected fall in the cost of car operation, whilst rail and bus fares will increase in real terms. These assumptions run counter to Government transport policy which is to reduce car usage in favour of public transport. Airport employers should be expected to continue to maintain the present impetus to reduce the very high levels of employee car usage.

7.2 Roads

7.2.1 The forecast growth in airport-related road traffic is not clearly compared with non-airport-related growth and in any case the calculation of both is questionable. Assumed rates of growth for non-airport-related traffic are shown in para 10.4.2, Table 10.3 of the Environmental Statement. The assumed growth between 2003 and 2023 ranges from 39% to 56% for different times of day. Although the assumed growth drivers for this assumption are stated in Table 10.3, little account appears to have been taken of Government policy to reduce the need to travel, especially by car; or the growing awareness and pressure for action to combat climate change; or the likely progressive constraints on availability of fossil fuels as world demand is expected to overtake supply. Economic assumptions used for modelling are listed in CD/14.2 Appendix A.1. This DfT guidance contains some rather perverse forecast trends, especially that in 2020 the cost of car fuel will be only 85% of 2003, whilst rail fares will be 118%, bus 150% and coach fares 118% - except coach to London at 101% - see our comment at para 6.1.5. This seems to go against what one would expect given Government transport policy, which is aimed at reducing car use, and Government's ability to affect these prices.

7.2.2 Our Annex 2 summarises BAA's ES projections for one element of surface access, M11 traffic in the morning peak, and also includes an attempt to give a more realistic picture of the impact of the proposed development. It is based on 45mppa (i.e. less than 'full use') and assumes that growth rates since 2003 are consistent for transfer passengers and across places of origin and destination. Currently, airport-related traffic is relatively light during the morning commuter peak, but the proposed increase in passenger ATMs is expected to even out the times of aircraft movements and therefore the times of passenger surface access movements. BAA's 40mppa forecast is for a 77% increase in airport-related traffic from 2003 to 2023, whilst our 45mppa extrapolation shows growth of 144%. BAA forecasts total morning peak M11 traffic (including non airport-related traffic) to grow by 54% whilst we show 63%. These differences are significant for a road which is already extremely busy at that time of the day. Our figures ignore the various tests made after the ES and also make no adjustment for any error that may have arisen from vehicle occupancy assumptions.

7.2.3 BAA assumes that the extra road traffic is virtually all off-peak because the additional ATMs can only be accommodated during off-peak hours. However, BAA also argues that there will be an acute capacity shortage in the south east by 2014. Surely then it can be anticipated that load factors on existing peak-time flights will increase sharply over the period to 2014, to 2021 and to 2030 and that airlines will progressively respond to this by using larger aircraft. BAA needs to explain the specific assumptions it has made for these trends and to provide a detailed breakdown of its input modelling data, including for employee journeys and other non-passenger journeys e.g. freight-related.

7.2.4 ES Vol 11 para 10.5.12 and figures 10.5 to 10.8 review peak hour traffic flow forecasts on main roads within about 20kms of the airport, comparing projections for 2014 and 2023 for different passenger numbers and different road schemes. No figures are shown for current volumes or volumes above 35mppa. The

relatively modest forecast increase in airport-related traffic on local main roads at peak times is explained as being due to the use of these roads at this time of day being mainly by airport workers, not passengers, with the number of workers travelling at peak times little changed between 25mppa and 40mppa.

7.2.5 One of the roads expected to be worst affected is the B1383. Essex County Council's draft Local Transport Plan 2006-2011 comments in para 6.3 that the B1383 through Stansted Mountfitchet carried traffic flows in excess of its operational capacity as long ago as 2001. BAA anticipates [CD/14.2 Fig 5.1] a 24% increase in overall peak hour road traffic flows here between 2014 and 2023 – increases that are claimed to have little to do with the airport. This may be a reference to planned local housing developments, some of which – for example the development at Stansted's Rochford Nurseries – are airport-related. However, it is a fundamental planning requirement for cumulative and aggregate impacts to be considered. Where the existing infrastructure is operating at the margin, any planning application should be resisted if it has the potential to lay 'the last straw'.

7.2.6 It is difficult to understand BAA's projections for growth in airport traffic. We seem to have no total figures and can see the impact reflected only in charts of morning and evening peak flows. For example, CD/14.2 Fig 5.4 shows that the two way flows of airport traffic in 2014 will increase from 1,301 (being 524 north-bound plus 777 south-bound) in the morning peak hour at 25mppa to 1,492 (602 + 890) at 35mppa (neither enhanced), an increase of 15%. This increase seems extraordinarily low when set against the 40% increase in passengers from 25 to 35mppa. Perhaps this is influenced by vehicle occupancy and other assumptions which we have queried elsewhere, or perhaps by other assumptions which are not apparent.

7.2.7 ES Vol 14 para 10.5.16 suggests the prohibition of non-airport traffic from the Coopers End access. Addendum Update para 5.2.6 states that 'there are other smaller forecast changes on local roads within the vicinity of the airport which occur as a result of closing the Coopers End entrance'. These changes are not illustrated and may be significant for local residents and local road users. Addendum Update Tables 5.1 and 5.2 show a major impact on the A120 as a consequence of Coopers End closure and this seems to confirm the need for a full explanation and consultation with interested parties. The anticipated impacts on road safety, local traffic flows, and on construction traffic flows, should be clearly spelled out so that this can be properly consulted upon as soon as possible, especially as it seems the closure would be recommended if this planning application were approved.

7.2.8 The Highways Agency, in its submission to the Examination in Public of the draft East of England Plan, commented:

> *'Modelling work undertaken by the Highways Agency (CD TRN6) indicates that growth provided for in the draft plan, including maximum use at Stansted Airport, is likely to result in regular congestion occurring on the section of the M11 between junctions 6 and 8.'*

ES Vol 11 para 10.5.17 indicates that 'queue lengths could exceed available space' on the M11 J8 roundabout in morning and evening peaks by 2014 – but claims that this would not be seriously exacerbated by increases in airport traffic beyond 25mppa. Potential gridlock, but BAA focus is on disclaiming responsibility for who laid 'the last straw'. We reiterate that it is a fundamental planning requirement for cumulative and aggregate impacts to be considered and where the existing infrastructure is operating at the margin any planning application that has the potential to lay 'the last straw' should be resisted.

7.2.9 ES Vol 11 para 10.5.16 deals with traffic flows on the short 'weaving' section of the A120 (i.e. the section where there is lane crossover between airport and A120 traffic between M11 J8 and the slip roads to/from the Bassingbourn roundabout). It indicates that by 2023 the westbound three-lane weaving section would be approaching the design capacity. In our view the problem will arise much earlier because BAA's forecasting assumptions result in an understatement of road traffic flows.

7.2.10 ES Vol 11 para 10.5.18 indicates that roundabouts connecting the A120 with the A1250 (Dunmow Road to Bishop's Stortford) and the B1383 (Stansted Road to Bishop's Stortford) would be above capacity by 2014 – but claims that this would not be seriously exacerbated by increases in airport traffic beyond 25mppa. Potential gridlock, but BAA focus is once again disclaiming responsibility. Addendum Update para 5.1.4 states that 'an agreement has been reached … that schemes brought forward by the County Councils for these two roundabouts would qualify for contribution from the G1 airport related Local Roads Contribution.' This seems to give little reassurance that gridlock will be avoided. We note also that Update paras 5.7.1 and 5.8.1 also advise that conditions will not be materially different between the 25mppa scenario and the 35mppa (enhanced) scenario, but we take little comfort from this assurance given the many shortcomings in forecasting.

7.2.11 ES Vol 11 focuses on the strategic road network but makes no attempt to explain how local roads would cope with the increases in passenger and employee traffic. Whilst traffic flows on these roads do not approach saturation level, the increased traffic is likely to adversely affect travel conditions for other road users and adversely affect the quality of life for residents who live alongside them. Many country lanes and village streets have already been increasingly badly affected by airport-related traffic at all hours of the day and night seven days a week over the last ten years. They are now threatened with worse to come – more traffic, more noise and more fly-parking.

7.2.12 The present effective nightly respite from airport-related road traffic and its associated noise is less than four hours. This is summarised in our Annex 3. ES Vol 11 para 4.2.6 figures 4.1 and 4.2 show flight arrival and departure profiles. It is significant that the peak flight departure time is from 06:00 to 09:00 and peak flight arrival time from 22:00 to midnight. Appendix D finds that most passengers arrive at the airport at least two hours before their flight and take around 45 minutes from landing to leave the airport. These leads and lags suggest that airport traffic contributes to road and rail traffic (and therefore also to noise around the airport) from around 4am to past midnight. Thus, the 'quiet' night period locally is less than four hours. This conclusion is supported by Table 4.4 on page 31. Even that brief respite is interrupted by freight movements, both air and surface. Table 8.5 on page 114 shows the projected breakdown by mode and hour for 40mppa in 2014. These figures are included without adjustment in our Annex 3, which shows around one quarter of road surface access taking place during what most people would call 'night', between 11pm and 7am. Growth to 40mppa is projected to create over 3,000 additional passenger surface access movements every night between 11pm and 7am. This does not seem consistent with the ATWP promise that the Government would 'bear down' on night flights.

7.2.13 The comments within this section 7 relate to BAA's forecasts, all of which lack our confidence and generally understate the likely effects.

8 CONCLUSIONS

8.1.1 Given the inadequacies of the Environmental Statement, it is not possible to reach firm conclusions on the anticipated residual impacts after mitigation. BAA's assessment of the surface access implications of its proposed development significantly understates the true impacts of its proposed G1 development. Much work has to be done to make the Environmental Statement fit for purpose. We have listed some of the steps that should be taken.

8.1.2 There is no airport Masterplan, so the full context of this proposal is not clear. Lead times for putting in place road and rail infrastructure are notoriously lengthy and so at the very least there should be detailed traffic projections for 2021 and 2030. The impacts of this application cannot be properly assessed without a clear picture of the potential ultimate scale of development.

8.1.3 The assessment fails to look at the whole picture, fails to look far enough into the future and has been based on a series of assumptions which lack credibility. We cannot avoid the conclusion that much of the key input data for the modelling work has been developed to suit BAA's arguments.

8.1.4 The treatment of this planning application must be consistent with Government policy (reiterated at regional policy level) to 'reduce the need to travel, especially by car'. Our ‘Lo-Car’ strategy paper [CD/264], referred to earlier, provides a number of proposals for progressing this policy. Reduction of car use would reduce road congestion.

8.1.5 Without a fundamental shift in transport mode shares, the increase in road surface access movements would increase carbon emissions, contrary to the objectives of Government climate change policy.

8.1.6 BAA should first be required to address the backlog of investment in surface access infrastructure, particularly rail infrastructure, which has arisen as a result of the rapid growth that the airport has experienced over the past ten years. With regard to any expansion beyond 25mppa, infrastructure investment must not be a distant or uncertain prospect; it must precede any further expansion.

8.1.7 Too much reliance has been placed on BAA’s underlying assumptions, especially its forecast of transfer passengers, passenger origins/destinations and vehicle occupancy, such that the likely consequences even of 35mppa have not been fully understood. Furthermore, insufficient attention has been paid to life beyond 2014 and beyond 35mppa.

ANNEXES

Annex 1 Test of vehicle occupancy assumptions (re our para 5.1.26)
This shows how SSE has tested vehicle occupancy assumptions used by BAA. It suggests that additional car and taxi movements arising from passenger growth may be significantly understated. Reference is made to CAA data for 2002 and a copy is attached as Annex 4.

Annex 2 Forecast traffic flows on M11 (re our para 7.2.2)
This summarises BAA’s ES Vol 11 projections for M11 traffic in the morning peak, and also includes an attempt by SSE to give a more realistic picture of the impact of the proposed development. It is based on 45mppa (i.e. less than full use) and assumes that growth rates are

consistent across places of origin or destination. No attempt has been made to correct the possible understatement through use of inappropriate vehicle occupancy ratios – see also Annex 1.

Annex 3 Hourly surface access travel by airport passenger (re our para 7.2.12)
This summarises, without adjustment, BAA's figures of hourly demand for surface access in 2004 and as projected for 40mppa. This clearly shows that the nightly respite is less than four hours and that vehicle movements between 11pm and 7am will increase substantially.

Annex 4 CAA Group Size data for 2002 (re Annex 1)
Table 13.5 from CAA's Passenger Survey for 2002 – a source document for the calculation in Annex 1.