New Monks Farm – a flawed transport assessment?

In this comment on the proposed New Monks Farm development I have looked at documentation around certain key areas: traffic to IKEA, traffic generated by the NMF housing, and general traffic growth.

This comment is in five sections:

1. IKEA trip figures. My observation would suggest the Transport Assessment appears to underestimate numbers and
    - provides estimates for a range of stores based on a single 2010 survey on trip figures for IKEA in Cardiff
    - quotes estimates for stores that had not opened
    - fails to take account of significant population growth

2. IKEA at Cuerden in Lancashire. The Transport Assessment for this development is referred to in the documentation. IKEA was an anchor store in this £36m development site near Preston. Planning permission has been given and construction is underway, but IKEA pulled out in May 2018, citing increased development costs and delays. This is a concern for the sustainability of the proposed New Monks Farm development.

3. Estimates for traffic from the NMF proposed housing. It is worth noting that this will increase significantly if the developer seeks to reduce the ratio of social housing. This is not uncommon in major developments as developers find costs escalating. This would put yet further pressure on local roads.

4. Shoreham airport traffic

5. Traffic growth

The documents referred to below are:

- the Transport Assessment (TA) from Vectos for the developers, May 2017
- the Vectos response to challenge from Atkins, for Highways England, Supplementary Highways Technical Note (SHTN), August 2017
- the Transport Assessment prepared for a development at Cuerden, Lancashire. This included estimates for trips to a wider range of IKEA stores than in the NMF Transport Assessment and is referred to in the SHTN.

Note on two companies referred to below

- Vectos prepared and presented the Transport Assessment (TA) for the developers, and, in August 2017 a Supplementary Highways Technical Note (SHTN), responding to issues raised by;
- Atkins, a large, international transport consultancy working for Highways England

Vectos are retained consultants for IKEA and work for IKEA on all their UK developments. They seem to be the only source for information on journeys made to the stores. Much of the information they provide appears to be estimated, and not based on actual surveying.

Section 1 IKEA traffic

In the Traffic Assessment (TA) on expected journeys to IKEA (par 12.3) Vectos, for IKEA, say that the number of trips to an IKEA is determined more by the number of people, and their spending power, in its catchment area – within an hours drive – than the size of the store. This is not disputed by Atkins for Highways England.

The TA describes a 60-minute catchment area for the Lancing proposal - from Southampton to Hastings and north to Croydon. There is a question mark over the methodology, as one would be unlikely to travel the 54 miles between Southampton and Lancing in an hour. West Sussex County Council questioned this in a submission dated 18 August 2017; noting that AA Trip Advisor offered an estimate of 1hr 24 mins to 2hrs 10min for this journey. This must make Vectos traffic estimates questionable.

It is stated in the TA (para 12.3.10) that traffic flows surveyed at the existing Cardiff store have been adopted for this assessment and are shown in Table 12.3.

However, the figures presented in Table 12.3 are clearly labeled as predictions for the Exeter IKEA store, and not Cardiff. The Exeter store, which had not been built at the time the TA was written, is larger in floor size than the Cardiff store (28,000m2 compared with 26,000m2) but its catchment area is just 1.3m rather than Cardiff's 1,661,754.

Remarkably, a longer list of claimed IKEA trip figures (in the Jan 2017 Transport Assessment for a proposed development including an IKEA at Cuerden, Lancashire) shows that Vectos offer exactly the same figures for their Exeter and Cardiff stores despite differences in catchment areas of more than 360,000.

The New Monks Farm TA said (Table 12.3) that the Saturday peak would be 1,021 vehicles (combined in and out); the weekday evening peak (actual time not stated) would be 351, morning peak (actual time not stated) 28.

The Cuerdon Transport Assessment figures (Table 42) show that Vectos estimate Saturday peak trips to be 1,021 for

- their Exeter store (28km2, 1.3m catchment),
- their Cardiff store (26km2, 1.6m catchment) and for
- Lancing (35km2, 1.8m catchment).

Presenting the same precise number for such varied stores must put their methodology into question. This must make Vectos traffic estimates questionable.

Highways England's consultants Atkins asked for further information on these estimates.

Atkins also suggested that the developers needed to increase their estimate of average peak hour trips to IKEA, and referred to the Table 42 in the Cuerden TA.

Atkins believed the Bristol store would be a better basis for comparison.

In its response, (SHTN, Aug 2017, para 4.1.1) Vectos said the "Transport Assessment presented the methodology used to derive the trips generated by an IKEA, which is in keeping with assessments of all recent IKEA stores around the UK (ie Sheffield, Exeter, Cuerden".

In fact, Exeter did not open until May this year, 9 months after the Vectos response, and Cuerden will never open. So, they appear to be saying the assessment was in line with estimates of other stores yet to open. As all of these estimates were made by Vectos, it is hardly surprising that they are consistent.

Vectos estimates for Sheffield's 36,500m2 store state it will have 423 trips in or out in a weekday peak hour (5-6pm), 1,222 1-2 on a Saturday). This is 200 greater than the TA estimate for Lancing. These figures may not be helpful as they are described in the Cuerden TA as estimates rather than measured figures.

Despite Atkins suggesting a comparison with Bristol (catchment 2.3m) would be more appropriate, Vectos, in their response, continued to compare the Lancing proposal to the Cardiff IKEA, and seem to base their projections on a survey conducted in Cardiff on a Friday and Saturday in March **2010**.

They say the use of this data was acceptable to the "highway authorities" when they applied for planning permission for the Exeter store. It must be noted that the Exeter store has good road links and is in very close proximity to the M5 so transport issues are not as important, and perhaps not as closely scrutinized, as they need to be for Lancing and the A27.

Cardiff, which Vectos argue should be compared to the Lancing proposal, is 26,000m2, with 800 parking places. Lancing would be 35,000m2 with 948 parking spaces. This larger size suggests IKEA hope it will attract more customers than Cardiff, but they are arguing here that the number of peak time trips will be absolutely identical.

Vectos say there are 1.8 million people living within an hour of IKEA Lancing. This is based on 2011 census figures. According to West Sussex County Council the population of West Sussex was 806,900 in 2011, it will be 887,553 in 2021 and is projected to be 910,000 in 2026. If the population increase is similar across the IKEA Lancing catchment area, a fair assumption, then the number of potential IKEA shoppers would be more than 2m by the time the store opened, not the 1.8m their Transport Assessment figures are based upon.

Vectos argues that to campare Lancing with Bristol would be a 30% overestimation, but their estimate is greater than a 20% underestimation by 2026 according to accepted population projections. Bristol would be a better comparison, as Atkins suggests.

In response to Atkins, Vectos (SHTN para 4.1.7) say they will increase estimated for trips to and from Ikea by 70 – and that this would not impact the road network. Their methodology for doing this is to take the average pm peak trips from Table 42 in the Cuerden TA that shows trip rates for IKEAs at Exeter, Cardiff, Bristol, Milton Keynes and Southampton.

Even ignoring the fact that Exeter and Cardiff are given identical figures, here Vectos seem to be taking estimates from IKEA stores of different sizes, and catchment areas to create yet another estimate. The accuracy of estimates resulting from this crude approach must be open to question.

- It is to be noted that the opening of the Exeter IKEA was not trouble-free; some shoppers are reported to have given up and turned round due to the car park being too busy, others parked on nearby roundabouts. https://www.devonlive.com/news/warning-carnage-ikea-full-car-1613309

Section 2 IKEA walks away from Cuerden

IKEA was to be a 35,000m2 flagship store for a £36m development near Preston. Planning permission was given and groundwork was underway, but **IKEA is reported to have pulled out in May 2018, citing increased development costs and delays.** The local newspaper notes there is still disquiet over traffic estimates although it would have had better links with the road system than Lancing, being close to the M65 and M6.

This is a prestigious development recently named Lancashire Central. The council is now left with a significant problem.

https://www.lep.co.uk/news/business/ikea-pulls-out-of-cuerden-site-1-9169904
https://www.lancashirebusinessview.co.uk/ikea-pulls-cuerden-103957/

Section 3 Traffic impact from the New Monks Farm housing

The projected increase in traffic volume from the proposed NMF housing is based on the 70/30% private/affordable split. The information provided (TA Table 12.1) suggests that the morning peak the number of trips expected for an affordable house is less than half that for private housing, and just over half for the evening peak.

Therefore, any increase in the private allocation (often asked for by developers when faced with the true cost of a project, after planning permission has been given) will bring a disproportionate increase in traffic. Table 12.2 presents the number of projected trips given the 70/30 split. Using those figures one can calculated that a 10% increase in private allocation (80/20%) would increase the morning peak time trips to 290 from private accommodation, affordable would reduce to 46 – total 336.

Evening peak, projected as 368 in total, would increase to 391 (328 private, affordable drops to 63).

Every ten per cent reduction in affordable housing will add 21 cars to the morning peak, 23 to the evening peak.

Here it is in a table:

Split	Morning peak trips	Evening peak trips
70/30 in T Assessment	315	368
80/20	336	391
90/10	357	404

Section 4 Shoreham airport traffic

The Shoreham Airport proposal is for 25,000m2 industrial or warehousing, compared with 15,000m2 office/industrial/warehousing assumed in the modeling work for the Local Plan (SHTN 5.1.7). In the SHTN (table 5.2) an estimate of trip rates if the proposed Shoreham airport buildings were used for industrial or warehousing use is given. The mix is not known.

If it were to be all warehousing, the Traffic Assessment suggests there would be 33 arrivals or departures 7-8 am, 19, 8-9am and 28 weekday pm peak.

For industrial use it would be 80 arrivals or departures 7-8am, 147 8-9, and 109 weekday pm. These were estimated using a recognised and well-used planning tool.

This is lower than the estimate in the Local Plan because it envisaged office use. This generates more traffic than industry/warehousing (5.1.8). However, a possible 147 additional vehicles on the A27 8-9 must be seen as significant.

Section 5 Traffic Growth – when "experts" disagree

Atkins suggested forecasts should go to 2031 to be consistent with the Local Plan 3.1.1). Vectos responds that it considers a ten-year forecast to be "suitable" and that careful consideration had been given to the phasing of the development with a new signal-controlled roundabout operational in 2019 along with IKEA and 150 houses, before the full development becomes operational in 2025.

Atkins criticised the methodology used by Vectos to forecast traffic growth as "simplistic" and unable to forecast traffic growth at a local level (3.1.5). Atkins also said the traffic forecast method, used by Vectos was out of date having been based on a 2011 publication.

Atkins compared Local Plan traffic projections for 2027 with those in the TA, for 2028 with the conclusion that eastbound flow on the A27, just east of Grinstead Lane is significantly greater in the am peak in the Local Plan projection compared with the TA. (3.1.12). Vectos says it is not for them to comment on the statistics from the Local Plan – stating the methodology used for the Local Plan tends "to overestimate future flows".

Atkins (7.1.11) believe the impact of the IKEA development could be greater than that outlined in the Local Plan – as IKEA is replacing the Local Plan's assumed traditional employment. Vectos states that 124 additional trips would not constitute a material impact on the road network.

Atkins, for HE, raised further issues:

- Assessment for the A27/access junction signalised roundabout be treated with caution
- The Adur Local Plan refers to traffic signal control of the Grinstead Lane roundabout (7.3).

Vectos has said 124 additional trips (over the Adur Local Plan as a result of the IKEA development) would not constitute a material impact on the road network, but if one adds this to

- *227 peak hours (7-9am) journeys from the airport site*
- *potentially greater numbers than predicted from proposed New Monks Farm housing*
- *Primary school journeys and*
- *the failure to accurately estimate journeys to and from IKEA*

then the risk of significant growth in traffic congestion and pollution is very real indeed. It is a risk the council should not take. Planning permission should not be granted for this development.