

Response to Comments by Birmingham City Council in EXAM111

Introduction

The comments in this note are in response to the note drawn up by Birmingham City Council “Birmingham Development Plan – Public Inquiry, Response to Matters Raised by Dr Paul Hoad, Matter I, Thurs 20 November 2014”, identified as EXAM111 within the Birmingham Development Plan Public Examination. This document of the Council’s was in itself a response to my own note entitled Comments by Dr P Hoad on: “Transport Modelling Assessment: Hybrid Model Output”, May, 2014; and “PRIISM Forecasting Report”, September 2014”, identified as EXAM110 (although at the current date neither of these documents are available on the BCC website).

The structure of this document follows the structure of EXAM111, making reference to the various section headings used in the Council’s note.

BCC EXAM111 Overall Response

The council presents data in Table 2.1 which suggests that the output of the Hybrid Model EXAM106 is to give higher traffic flows than those originally calculated in in TA29 (Green Belt Development Travel Demand Report). However, rather than proving the methodology in EXAM106 was correct this does point more to the fact that the methodology used in TA29 was incorrect. Despite having started with a higher trip generation, the calculations for trip and mode distribution within TA29 have managed to bring the final total down to a smaller number of car trips.

Such an error in calculations is evident by comparison of the figures within TA29. Having begun the calculations of trip generation by direction (i.e. Arrivals and Departures) as shown in Table 4-17, this directionality is lost in later stages. So for example in Tables 6-11 and 6-12 the trips are just given as totals for a period, and have significantly declined.

The case of Peddimore is more easily considered as there is no issue of purely internal trips. For the AM peak, Table 4-17 gives a total of 2,477 person trips whereas Table 6-11 gives 2,172, a loss of 13% of the trips. For the PM peak Table 4-17 gives a total of 2,035 person trips whereas Table 6-11 gives 1,785 person trips, again a loss of 13%.

Unfortunately the complexity of the calculations in TA29 means that it is difficult to reproduce process from start to finish and to confirm whether (or rather where) there are further errors, which is the most likely explanation for why TA29 appears to give lower final figures. Be that as it may, the purpose of EXAM106 is to supersede TA29 (and given there is at least one error as identified above this may help to explain why new calculations were carried out in EXAM106). Regardless of what TA29 may have finished with, it is quite clear that if EXAM106 had begun the process with the full set of figures from Table 4-17 of TA29 then the final answers would be correspondingly higher. In simple terms, two wrongs do not make a right.

The council therefore should recalculate their forecasts starting with the higher numbers.

Excerpts from TA29 Green Belt Development Travel Demand Report

Table 4-17: Summary Trip Generation for the Green Belt Development

Use	AM Peak			PM Peak		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Peddimore Employment	2,018	458	2,477	297	1,739	2,035
Langley - Residential	1,280	4,373	5,654	3,397	2,242	5,640
Langley - Education	3,701	525	4,226	77	179	256
Langley - Retail	29	21	50	54	55	109
Langley --Other	572	459	1,031	786	720	1,506

Table 6-11: Peddimore: Trip Generation by Mode

Mode	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak
Car (Driver)	1,462	1,201	67%	67%
Car (Passenger)	311	255	14%	14%
Bus/Coach	207	170	10%	10%
Rail	17	14	1%	1%
Cycle	79	65	4%	4%
Walk	58	47	3%	3%
Other	39	32	2%	2%
Total	2,172	1,785	100%	100%

Table 6-12: Langley SUE: Trip Generation by Mode

Mode	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak
Car (Driver)	1,866	1,983	68%	65%
Car (Passenger)	241	328	9%	11%
Bus/Coach	285	299	10%	10%
Rail	27	33	1%	1%
Cycle	40	47	1%	2%
Walk	225	312	8%	10%
Other	51	50	2%	2%
Total	2,735	3,052	100%	100%

BCC EXAM111 Matter A.a.i

The text of the City Council’s argument in this section still demonstrates a very simplistic view of travel patterns, reflecting their view of the Langley development as more of “ghetto” rather than an area fully integrated into the rest of the community.

The Council sets forth the following argument: *“It is known that there is currently no reserve capacity in existing schools and any scope for potential expansion is likely to be taken up in meeting demand*

arising from existing residential areas as pupil numbers are currently experiencing both growth through birth rates and from net migration of a generally younger population into the City [Ref: Birmingham Education Sufficiency Requirements]. It is unreasonable to assume that this situation will suddenly change with the development of the Green Belt. Therefore the attractiveness' of other schools has to be set to zero. This calculation leads to the conclusion that all home based education trips are internal."

This argument however takes a very artificial view of what will happen, reflecting more of the mechanics of carrying out the modelling than reality. It is as if it is expected that on one day in 2031 there will be no development at all with all the schools being full, and on the next day suddenly the development appears and so all the school pupils within the development will be forced to go to the new schools within Langley (much as the Hybrid model adds new trips on top of the Reference case).

Yet what actually is to happen is that the Langley development is to be built up over some years. This very fact is critical to the Council's argument that the release of Green Belt must be done now rather than later as there is a limited number of houses that can be built and sold each year. As houses are built each year the school age population will be quite able to be integrated into the wider school infrastructure. Each year as pupils start at Primary School or move onto Secondary School the population of Langley would no doubt be dealt with as with any other. Just because a child lives in a house that was built recently should not lead to them being discriminated against.

What is probably misleading the Council is the problem faced by newly arrived families with children already at school. Whereas a Year 7 pupil ready to move up to a Sutton Secondary School would be just competing against other Year 7 pupils to fill the new year, a newly arrived Year 10 pupil, for example, would face the problem of finding a space in a School that is likely to be full. Even in such cases it cannot be assumed that such a child would be forced to use the new Secondary school. Moving a child from a school where they have friends can affect their education and so parents may wish to keep their child in their current school if that is still possible, or indeed it may affect the overall decision to move house or not (thereby diminishing the likelihood of this happening). Even if the child is forced to use the new Secondary school, after a few years such a pupil would then the choice of sixth form like any other pupil in the wider area. Similarly a pre-Secondary age child would only have a few years to go before they move up to Secondary school where they become just part of the wider school population.

As a consequence the idea that these "new arrivals" in Langley will be forced to use the new Secondary school because the existing schools are full is an unrealistic concept. The new development would be expected to become part of the local community, with the school age children able to consider schools outside as potential destinations and also for school age children outside of Langley to be able to consider the new school.

Even though the council claims that there is zero attraction to schools outside the Langley area, EXAM111 does then go on to admit there are factors that would create Education trips that are external to Langley, much of which is very speculative but all tending to imply the problem can be ignored. Firstly it is suggested that the proportion of such trips is likely to be low. Yet no evidence is given. Instead this seems to be a self-justifying argument – saying there is no evidence to contradict the assumed view given that no investigation has been conducted to test this assumption.

Secondly it is said that there is insufficient evidence, but why was evidence not collected in the first place. Surely Birmingham City Council as the Local Authority has some idea of the distribution of school pupils by school at least within each ward? Also the Prism model itself has been developed

using detailed data including Education trips. The Prism website contains a number of documents that explain the development of the model. This includes details of the “Household Travel Survey” (<http://217.206.77.231/prism/Downloads/2011/Reports/PRISM%20Surveys%202011%20Household%20Travel%20Final%20No%20Phone.pdf>) and “Mode-Destination Model Estimation” (http://217.206.77.231/prism/Downloads/2011/Reports/RAND_RR186.pdf), in both of which it can be seen that specific data has been collected in order to model Education trips in their own right. Such data no doubt would have been useful to inform the distribution of trips from Langley.

The third reason includes the suggestion that some privately educated pupils travel by private charter. In such cases these trips should be modelled as these are vehicles travelling on the road network that would otherwise be unaccounted for. Also such trips would be “double trips”, with the private charter driving into the Langley area before driving out, rather than just a single trip from home to school within a peak.

The fourth reason then dismisses education trips as being part of a trip that would already be made or that is being made outside of the peak hour. The issue of a trip being outside the peak hour is not valid, as the PRISM model is not the peak hour but the peak period (according to the Executive Summary of EXAM104, the Prism LMVR, the AM peak period runs from 07:00 to 09:30). That the trip to school might be part of a larger trip (or tour) is possible. However this assumes that the whole trip is a straight line which does not actually divert the overall trip. But it is quite possible for example to think of someone travelling from north of Walmley towards the city centre who could take advantage of the trip to drop off a school pupil at the school on the way. In such a case this would be a trip in to the Langley area and a trip out. So although the numbers might be low these “double trips” can increase the impact. Overall this ignores the possibility of children being driven to school by someone who has the flexibility to drive them to work and then go back home again (e.g. a non-working parent, a parent doing shift or part-time work, retired grand-parents etc.).

Therefore the modelling of these Education trips should include trips in to and out of the Langley area and not simply assume these are zero. The likely distribution of movements will be complicated, but that is the nature of all trips. Rather than just ignoring Education trips, they should be properly considered, particularly making use of information that is available either from within the council’s Education department or has already been collated for the Prism model.

The only justification for a “zero trip” scenario would be if the City Council’s Education department is prepared to go on record that the new schools will only be available to residents in the Langley development and that school age children living in the Langley development will be barred from all other schools.

With respect to non-Education trips, EXAM111 does recognise that external trips will be created when it identifies that “a convenience store on site and the ASDA at Minworth would draw most of the demand from the estate”. ASDA is of course outside of the Langley area and hence any trips to/from ASDA should be considered as external trips. Although ASDA is close to Langley, the impact on local roads will be important, adding to demands particularly at Minworth roundabout and in all probability the nearby junction of Walmley Ash Road and Webster Way which is a significant bottleneck to traffic.

The council then goes on to argue that the non-residential elements of the development are “ancillary” and that their only impact will be to effectively “mop up” unwanted potential external trips. While this is a convenient method to simplify the calculations this is not realistic. If the development was circular with these ancillary land uses in the very centre, and the corresponding

services provided by these “ancillary” land uses in the external were then located at a distance equal to twice the radius of the development circle then such a situation might just occur. However the Langley area is far from a circle, it is a very elongated blob, its north-south measurement being at least three times that of the east-west measurement at its widest point. Finding the perfect location for these ancillary land uses where they are able to serve everyone’s needs within Langley and yet be of no attraction to the neighbouring residents would be an impossible task so it is not justified to make claims for it.

Had the council been able to produce a plan of how the Langley area would be arranged, showing where the different land uses would be placed and the internal road network, they might have been able to back up their assertions. Instead the approach seems to be that the absence of such evidence allows the council to make assumptions which are unfettered by the need to base their plans on a strong evidence base.

The approach of considering these land uses as merely “ancillary” to the Langley area with no other purpose is also very condescending to the potential operators of these businesses. Anyone opening a business will have their own business plans which would be expected to want to increase the amount of business they do. They will not want to be just a local shop for local people (unless the council wants to rename the development as “Royston Vasey”). Just because Walmley village has shops does not stop people in Walmley shopping elsewhere (personally although I live in Walmley I tend to shop more frequently at ASDA and Wylde Green, than in Walmley Village contrary to how the council might expect me to behave, simply because of the choice of shopping is better). Unless the council is going to impose specific terms in the deeds for these specific elements of the development, then the council’s approach cannot be sustained. There are also enough examples of mini-shopping centres around Birmingham which must have been put in at the time of a residential development but now have empty boarded up premises that are a local eyesore simply because they do correspond to how people actually behave.

The approach taken is therefore of a “best case” scenario, where planning has been replaced by wishful thinking to minimise expectations of travel. Proper planning requires proper consideration of issues, even when they pose difficulties and require additional effort to resolve.

BCC EXAM111 Matter A.b

In this section the City Council appears to be justifying the its approach by saying that there is little difference between the average hourly flow over the peak period and the average flow over the peak hour, and that this would only give a 5 to 10% underestimation of peak hour flows.

This argument though misses the fundamental point that the process set out in EXAM106 involved starting with a peak hour flow which was then factored by 0.7 to convert to a peak period flow The process did not start with an average period flow. Only by applying a comparable factor (divide by 0.7, or multiply by 1.4) can it be converted to being a valid peak hour flow.

Given the evidence that the City Council have presented in EXAM111 it would have been more reasonable to assume a factor of 0.9 should have been applied to the development flows before input to the Hybrid Model. In terms of the percentage point difference between 0.9 and 0.7 is of course 20% rather than the 5 to 10% claimed (although $0.9 \div 0.7 = 1.286$ so this would imply a 30% uplift to the development flows). Had this factor of 0.9 been used it would therefore have shown

much larger impacts on the network in the AM peak (with a larger number of junctions being identified for mitigation measures).

This response from the Council therefore weakens the case for the evidence presented in the EXAM106 as to the scale of the impact.

BCC EXAM111 Matter A.c

In this section the City Council confirm that the mode share for the “with development” case was based upon a variable demand model run using “with development” networks. This includes public transport measures including bus gates/ bus lanes to promote the usage of public transport. This therefore removes concerns that the mode share was taken from the Reference case which would have implied an over-optimistic usage of public transport.

What this section has not addressed, and hence confirms, is the Hybrid model network is based upon the Reference case highway network. This network would not have the reductions in capacity inherent in these pro-bus measures and therefore when the impact of the development as a whole was shown in the Hybrid Model Output report (EXAM106) it is therefore not showing the complete picture. Much dismay was caused amongst local residents when the council announced at a public meeting that it was intending to reintroduce a bus lane into the city, with the inevitable congestion it would lead to (the very reason, it was admitted by the council, that it was taken out). Although the council might consider that such measures are additional to the development and might want them introduced for positive reasons, they are really part and parcel of the Green Belt development and the assessment must consider them as a whole, and the council must accept (and mitigate) any negative impacts that are produced).

The opposition to development on the Green Belt in Sutton is not simply a matter of disliking the loss of green spaces. There is the additional concern that the extra traffic created will have serious adverse impact on travel because there is no confidence in the council adequately dealing with it. Even if the land to be developed was of the most hideous nature, there would still be opposition to placing such a massive development with so little extra infrastructure to support it. Added to this is the fact that despite adding extra trips onto the road network the council is actually planning to reduce road capacity by imposing bus lanes. Even on its own, without any new development, the idea of bus lanes would be highly controversial and would be subject to great scrutiny. Yet these are being left out when the council presents the impact of their plans.

BCC EXAM111 Matter B

In setting out its arguments in this section, the City Council raises further issues over the validity of its analysis. It is stated that the junction assessments carried out for Minworth Roundabout and Peddimore Access was undertaken “before PRISM output was available”. This is an important statement in this contradicts what was stated by the council at the Public Examination session of 20th November 2014. At this session at the start of my verbal evidence I made a point of posing the question, through the inspector, of whether the Hybrid Model Output report (EXAM106) was the source of the data for all the junction assessments, to which the council replied in the affirmative. On the basis of this verbal statement from the council I withdrew my earlier criticism of the use of Prism as a variable demand model to provide forecasts for the “with development case”, which had been included in my evidence on Matter E and was a substantial part of my evidence for Matter I. In

view of this new statement from the council I am therefore concerned that my retraction of evidence was based upon incorrect information.

Having considered the implications of this revision by the council it is probably still appropriate that my criticism on the use of Prism as a variable demand model to provide forecasts for the “with development case” is no longer appropriate on the basis that:

- The assessments for Tyburn Roundabout (TA24) and M42 J9 (TA28) made use of the Prism Hybrid model (EXAM 106) which utilised a fixed matrix approach; and
- The assessments for Minworth Roundabout (TA23) and Peddimore Access (TA25 and TA26) made no use whatsoever of Prism (as identified above).

This though raises further questions over the assessments rather than solving them. If Prism was not available for analysis of Minworth Roundabout and Peddimore Access, then what exactly was used? No details are provided in the relevant documents merely that Aecom was provided the information by PJA. The lack of any substantive information for the source of the data used for these critical assessments is itself enough to discredit the work reported in these documents (and presumably Aecom worded their report carefully to identify that any such weakness did not lie with them). That the City Council have now ruled out the use of the one critical source of information that would have been assumed to have been utilised to provide future year forecasts even more clearly invalidates these documents.

In addition this approach breaks a fundamental concept in the process of producing traffic forecasts, namely to have one consistent approach for all forecasting. (Although further sensitivity tests might be conducted these would always be in relation to the single main case.) Having undertaken the work documented in TA23, TA25 and TA26 without Prism, once the Prism forecasts became available this work should have been updated by work using the new Prism forecasts. Whilst these three documents have a value in recording some of what was done in the past, these reports are no longer valid for the original purpose i.e. demonstrating that there is a solution to the problem of increased traffic demands, as the forecasts they are based upon can no longer be considered to be valid (if they ever were, given the lack of documentation discussed above). This pick’n’mix” approach to forecasting, with predictions based on a variety of different methods is hardly one to instil confidence in the final results.

BCC EXAM111 Matter C

Whilst the City Council expresses confidence in the Prism model as an appropriate tool to determine the necessary junction improvements this view is contradicted by other sections of the document. The preceding sections sets out an argument that flows from the Prism model have not been used as direct inputs for the various junctions assessments. Indeed at the top of page 9 it states *“As noted in Section 4.2 of report TA24, DMRB (Volume 12, Section 1, Part 1, TAM) does not recommend that future year flows are taken directly from a strategic traffic model but rather that the strategic model forecast traffic growth is applied instead to observed traffic counts.”* The argument is also included in Section 4.2 of TA24, which not only refers to DMRB (Volume 12, Section 1, Part 1, TAM) but also to TA 23/81 (Junctions and Accesses: determination of size of roundabouts and major/minor junctions) which *“cautions against the use of model output directly and refers the user to TAM.”*

The weakness of using Prism flows on their own and the need for more rigorous assessment was indeed confirmed early on in the BDP study, in TA4. Section 6.2 of TA4 states *“However, the model*

outputs are not suitable for detailed analysis of individual junctions. We therefore propose using the PRISM model outputs to understand the change in trip patterns and impacts at individual roads and junctions. Further modelling using standalone modelling packages will be undertaken as part of latter stage to inform Birmingham City Council and other stakeholders about when parts of the network will cease to be operational in future.”

The importance of using “standalone modelling packages” was then confirmed by the work reported in TA23, TA24, TA25, TA26 and TA28. If it were possible to simply take Prism flows, as is claimed in the City Council’s response, then why was council tax payers’ money spent on what would otherwise be a waste of time and money? These reports (TA23, TA24, TA25, TA26 and TA28) also show the difficulty of deriving a solution, with various options having to be tested for an individual junction (for example TA 24 runs to at least 4 different design options, as well as undertaking additional sensitivity tests due to concerns over the robustness of the forecast flows used).

An extra complication for a number of junctions is that the forecasts presented in EXAM106 show significant decreases in traffic on some arms, presumably due to traffic rerouting to avoid the congestion caused by the additional traffic. For example in Figure 3-10 of EXAM106 it can be seen that Walmley Road just north of Walmley Village suffers a significant decrease in traffic, no doubt because of the increased east-west flows associated with the development. To provide an adequate redesign for the junction of Walmley Road, Fox Hollies Road and Wylde Green Road therefore needs to have more analysis than just looking at the flows from the Hybrid model. Consideration has to be made to the Reference forecasts in order to identify the amount of pre-existing traffic that has been forced away from this junction but which ought to have capacity provided for it. Without this adjustment any redesign will be based on the assumption (whether made consciously or unconsciously) that existing traffic must be forced away from the junction to accommodate the new traffic, which is clearly incorrect (even for a “non-sustainable” development).

Part of Figure 3-10 of EXAM106 showing significant diversion of traffic away from Walmley Road



Hence it is clear for numerous reasons that designing a solution to the future road conditions is not a simple process, as the council claims.

It is also interesting to note that in the list of infrastructure improvements (Appendix E of TA8) the junctions that have been the subject of these more detailed assessments (“Tyburn Island - Junction improvements”, “M42 Junction 9 - Junction improvements” and “Minworth Island Roundabout - Junction improvements” are substantially greater (roughly a factor of 10) greater than other schemes. It might be argued that these junctions might be more expensive as they are closer to the site and would suffer a greater impact, but this would only really affect what junctions should be identified not the ultimate scale of the change. If there are junctions forecast not to have enough entry lanes it is not as if a junction close to the site get one new lane and those further away get half

or a quarter of an extra lane. Once a junction needs to be improved it has to be improved in full. Hence it seems unlikely that while “Tyburn Island - Junction improvements” would cost £1,792,938 the “Spitfire Island - Junction improvements” (the junction of A452 with A47, just south of Tyburn Island) would only cost a mere £229,598. Hence a more thorough analysis of each individual location is likely to significantly increase the required budget for such works (potentially tenfold) even if the number of locations requiring treatment remained the same).

The assessment of these junctions is not something that the City Council can merely defer to some ill-defined date in the future. The time for this assessment was prior to the Public Examination as council has an obligation to demonstrate the sustainability of the Peddimore and Langley developments to justify the release of Green Belt. The complete absence of such work was indeed notable at the Public Consultation phase. If the council is of the opinion that the analysis should be deferred then they just have to defer release of the Green Belt. Another important point is the need to ensure there is adequate funding for the improvements and that this is properly planned for. It is well known that councils are facing severe spending cuts due to the on-going economic issue of government expenditure, a problem that has been referred to as the “Jaws of Doom” by Birmingham City Council’s leader Sir Albert Bore, with budget pressures steadily increasing in the future whilst revenues steadily decrease. The City Council also faces the financial demands of settling the problem of underpaying female staff in the past. The potential for additional funding to offset any shortfall in funding should therefore not be taken for granted.

Sutton Coldfield has suffered from poor planning in the past. When the last release of Green Belt was made, modifications were made to the local road network, with the addition of Thimble End Road, linking Webster Way to Walmley Road and the severing of Signal Hayes Road. This also included changing the arrangement of the junction of Walmley Road, Springfield Road and Signal Hayes Road. This took the council several goes to get right in the end, mainly because they underestimated the amount of traffic coming out of Signal Hayes Road. This wasted money, and was not covered by the cost of the Section 106 agreements as originally planned but came out of funds that could have been spent on better things had the job been done correctly first time round.

In the preceding release of Green Belt, the council underestimated the degree of new traffic generated by the land west of Webster Way, resulting in long queues of traffic on Calder Drive. The council therefore spent more tax-payer’s money to change the priority junction with Webster Way into a mini-roundabout. The change means that traffic coming out of the residential development get priority with the result that traffic now rat-runs through this residential area in order to get ahead of the queue. The idea that local residents should put their faith in the idea that the council will be able to provide a solution to the additional traffic where the council has produced no hard evidence is clearly unreasonable.

It is therefore clear that for a valid assessment of the impact of the additional traffic to be carried out and for appropriate improvements to be identified it is not simply a matter of using Prism but of undertaking a full and proper study. This should include the use of “standalone” software, based on locally surveyed data and incorporating forecast growth in traffic. Site conditions would also need to be considered in detail to identify potential constraints (e.g. the presence of utilities, trees etc.). All this would need to be properly documented for the many reasons that such work would always need to be documented, including to ensure that a proper record is kept of the various processes undertaken for future reference, to allow adequate auditing to be applied, to demonstrate that Council tax payers’ money has been effectively spent, etc..

As has been identified, the Prism model forecasts are in terms of an average flow over the peak period (rather than the more conventional average over the peak hour), a matter that was not identified in the individual junction assessments. It is therefore reasonable to question whether, if any analysis has been carried out, this matter has actually been taken account of. At the very least this would have meant that the council would have under-estimated how many junctions (and roads) would be affected. Had the plots in EXAM106 of the difference between the “with development” and the “reference case” been in terms of average peak hour (as would have been expected) the plots would have shown a much wider area of impact, particularly for the AM. (It must be kept in mind that as the factor to convert from peak hour to peak period implies a reduction of 30% in the AM peak, this therefore requires a subsequent increase of 43% to bring it back to a peak hour flow which would be a significant uplift to the plotted flows.)

Unless there is a large quantity of reports that have not been made public, there can have been no valid assessment of these junctions.

Therefore the Council cannot claim that it is possible to have the Langley and Peddimore developments with no adverse impact on existing travel movements (or indeed that junctions can be improved without the removal of trees or other actions that would hardly be considered “sustainable”).

Conclusions

Although the council’s note appears to clarify a number of points overall the result of EXAM111 is not to strengthen the case for the council’s assessment of the impact of allowing the Green belt to be developed, but if anything it weakens it further. Key points include:

- Admission that the assessment of Minworth Roundabout and Peddimore Access were conducted without the use of the Prism model, which the Council has otherwise claimed to be at the centre of all their traffic forecasting;
- Admission that no Education trips would be made outside of Langley on the basis that as local schools are currently expected to be full in 2031 pupils would effectively be forced into the new school regardless of the fact that the additional of a new schools would allow for a wider redistribution of school places;
- Non-residential (and non-Educational) land uses within Langley will be perfectly placed to prevent people having to leave the Langley area whilst at the same time being of no interest to anyone else outside Langley, and all without saying where these would be located within a long stretch of land, parts of which will inevitably be closer to existing facilities than to any new “ancillary” facilities;
- The justification for using a reduced total trip generation in EXAM106 than was derived in TA29 is based on the argument that the traffic forecasts in EXAM106 were ultimately higher than those in TA29. However, this does not resolve the main problem, in that had the council used as their starting point the higher figures initially calculated in TA29 they would have ended up with higher figures than they did in EXAM106. The fact that the final numbers in EXAM106 were higher than in TA29 merely indicates that there was one or more errors in the process in TA29, evidence for which has been identified;
- Evidence has been presented to show that the difference between the average flow over a peak period and the average flow over the peak hour is of the order of 10%, and hence the peak period flow used by Prism would be adequate to represent the peak hour flow.

However this ignores the fact that the problem derives from the fact that AM peak period values had been derived by reducing the peak hour flows by 30%. So claiming the two should be very much the same contradicts the process used. Instead it suggests the extra development traffic added to the Prism model to create the Hybrid model should have been much higher, factored by 0.9 not 0.7 in the AM peak, effectively making the additional flows (30%) larger than claimed; and

- The council claims that it has adequate information to design the necessary solutions to all the junctions identified as requiring capacity improvement, thereby justifying the Langley and Peddimore developments as being “sustainable”. This not only overlooks the numerous difficulties in deriving the best solution, which can be seen by the various option testing that was reported in the few junctions that were assessed, but also relies on the Prism model being adequate to provide future forecast flows directly. The later point is in direct contradiction to statement elsewhere in EXAM111 that the Prism model cannot be used on its own in this manner (and which has been used to defend the council’s approach in assessing the Tyburn Roundabout and M42 J9).

As a consequence it is clear that serious weaknesses exist in the traffic assessments carried out by the council. At the very least the council needs to recalculate their forecasts to give a higher, more realistic total. Once these are done the council should publish these flows so that residents (and indeed the council itself) knows what the impact is forecast to be for individual junctions and roads in the area of impact (rather than relying on very vague bandwidth diagrams which are difficult to interpret). Then the council can set about investigating each problem location, publishing information in full on what the proposed solution will be and local impacts these will have (e.g. increase land take, impact on existing trees and other environmental impacts, safety implications, adverse impact on neighbouring properties etc.. Due to the amount of work this would require, the City Council should therefore be given time to rework these numbers before re-presenting them to the Public Examination.

Without such work, the Birmingham Development Plan cannot be considered “sound”.

P Hoad 05/12/14