

Technical Note

Project: Proposed Residential Development off Hay End Lane, Fradley	To: Fradley Neighbourhood Plan Committee (FAO Bob Carruthers)
Subject: Traffic Review	From: Sam Grundy BEng CEng MICE
Date: 5 th August 2014	cc:

1. Foreward

This report was produced by Sam Grundy. Sam holds an Honours Degree in Civil and Structural Engineering. He is a Chartered Engineer and a Member of the Institution of Civil Engineers and has been for the last 36 years. Sam started his career in local government with the Borough of Sutton Coldfield and the West Midlands County Council, specialising in highway design. In 1986, following the abolition of the County Council, Sam joined Sandwell MBC as a Group Engineer in Highways Forward Planning. Part of the work of this group involved a review of all highway impacts of planning applications received by Sandwell. Sam moved into the private sector in 1991 where he worked for Wootton Jeffreys and then Atkins. At Atkins he was Group Leader of the Network Management Team which was involved in various Traffic, Safety and Development Schemes. These schemes included all traffic and transportation input for three of the Highways Agency's Maintenance Areas Contracts, where Atkins was the Managing Agent. Sam took early retirement in 2011 when much of the HA's programmes were cut. Since this time he has maintained links with the industry, working as a freelance engineer on a number of different commissions and as Secretary of the West Midlands ICE Committee.

2. Introduction

The Fradley Neighbourhood Plan Committee (FNPC) commissioned me to advise them on the traffic and highway issues of the proposals to develop 250 residential units and a public house / restaurant with a gross floor area of 700sqm on land to the north of Hay End Lane, Fradley. The development would be accessed from Hay End Lane via a new priority junction that would replace the existing roundabout at the Hay End Lane / Turnbull Road junction. The development proposals have been submitted for Outline Planning Application (13/00633/OUTM) to Lichfield District Council

It was agreed with FNPC that this commission would be made up of:

A visit to the site and the surrounding highway network.

An initial review of the Transport Assessment (TA) produced in support of the initial planning application.

This technical note details my findings from this review.

2.1 Site Visit

2.2 I undertook the site visit on the afternoon of Thursday 3rd July 2014. I was accompanied by Bob Carruthers Chairman FNPC. The visit involved a drive through of the area - to include all possible routes into and out of the proposed development and included using the A38 junctions at Alrewas, Fradley Village and Hilliard's Cross. Away from the A38 traffic flows were reasonably light and there was little evidence of congestion on the roads around the development site. However, when it came to school finishing time, the roads around the school were extremely busy with cars parked at every available point. One could see how these problems would be exacerbated by the

proposed development, both during construction and when fully built. The site visit also highlighted the substandard nature of the A38 Fradley Village Junction when compared to other junctions on the A38.

2.3 Review of Previous Transport Assessment

The initial TA in support of the planning application was produced by Phil Jones Associates (PJA) in May 2013. In September 2013 a Transport Assessment Addendum Report was produced by PJA to provide additional information to satisfy concerns raised by a number of bodies in relation to the TA. Based on these two documents, there are five key issues where I have concerns that the TA does not support the conclusions that the development's 'impact on the local highway network is likely to be minimal' and 'the proposed development is acceptable in transport terms'. These five key issues are covered in detail below.

Trip Distribution

The initial work, based on journey time surveys, showed that all development traffic using the A38 would use the Fradley Village junction to access the A38. However, an arbitrary reassignment was made of 10% of this traffic to the Alrewas Junction for trips to and from the A38 north and the Hilliard's Cross Junction for trips to and from the A38 south. I see no evidence to support this reassignment.

VISSIM Modelling

I agree with the Halcrow Technical Note that there is no evidence that the updated 2013 base model was re-validated against the actual operation of the highway network in 2013. Indeed I would suggest that some of the results quoted in the PJA's reports do cause concerns. The only difference between the base + committed development and the base + committed development plus the proposed development is an on-line improvement of Wood End Lane between Lancaster Road and the A38 and the inclusion of generated traffic from the proposed development. However, the VISSIM modelling shows a reduction in queuing at approaches to the A5 Muckley Corner Junction, the A5 Wall Island Junction and the Eastern Avenue/ Trent Valley Junction. These results are counter intuitive.

Construction Traffic

The routing of construction traffic to the site is briefly touched on in the Addendum Report and a plan showing tracking for a low loader accessing the site from the Fradley Village A38 Junction forms part of the report. However, no details of likely vehicle numbers or timings of deliveries are yet available. The plan included within the Addendum report does show that at certain locations the low loader will be taking up most of the available road width. It is understood that there have been suggestions that all construction traffic would use the Hilliard's Cross A38 Junction to access the site, but the question remains as to how this would be enforced.

A38 Junction at Fradley Village

The initial site visit identified the substandard nature of this junction in terms of the length of the diverge lane and the absence of a merge lane on either carriageway. The Halcrow Technical Note describes these shortcomings in detail. PJA have not attempted to refute any of these observations but have sought to dismiss these concerns by extending the Road Safety Audit to consider this junction within the report. The RSA makes the point that there are 'similar layouts' on the A38 at Hilliard's Cross and Barton-Under-Needwood. That is correct if they are talking about the layout of the side roads away from the A38 and the bridge over the A38. However, in terms of the actual priority junctions with the A38 there are major differences. Both of these other junctions have significantly longer diverge lanes and merge lanes are also provided at both junctions. The report goes on to say that after looking at the accident history 'it is not considered that highway factors contributed to the four collisions'. Given the fact that there are no merge lanes at this junction, and that 3 of the 4 collisions involved merging traffic, I find that statement difficult to understand. With regard to the assumptions made in the RSA about HGVs, those driving into the village are signed to use this junction, while those visiting Fradley Park are signed to use the Hilliard's Cross junction. However, vehicles from the north do occasionally drive through the village to access Fradley Park.

Hilliard's Cross Improvement

The TA currently shows that the proposed development would generate a total two way flow of 6 vehicles along Wood End Lane in both the AM and PM peak hours. Flows of this level are not significant and would be much lower than the general daily variations in flow one would expect. Given these levels of flow, it would be impossible for a local authority to justify the need for the development to fund improvements of any nature at this location. However, the TA promises to deliver a significant on-line improvement of Wood End Lane between Lancaster Road and the A38. It is also worth noting that Table 8.4 in the TA purports to show that

the improvement along Wood End Road, as part of the proposed development, would deliver a reduction in journey times along the A38 into Lichfield. In fact the development will actually increase flows along the A38 into and out of Lichfield which would increase journey times. What this table actually shows is that the Hilliard's Cross improvement will reduce congestion and delays along Wood End Lane between the Lancaster Road Roundabout and the A38.

3. Summary

It is evident that there are existing traffic problems within and around Fradley, most of which are not related to highway capacity and congestion. There are problems with HGV signing on the network. While the proposed development will not, in the long term, mean more HGVs driving through the village, the increase in traffic levels as a result of the development will increase the impact of these HGVs. There is also the problem of the availability of on-road car parking in the vicinity of the school, particularly at the start and finish of the school day. The road improvement proposed in the TA in this location would reduce on-street parking. It is accepted that there would be additional parking made available at the pub / restaurant but there is no guarantee that parents/carers would use these.

Based on my review of the PJA Transport Assessment and the Transport Assessment Addendum I would reiterate the concerns made in the Halcrow Technical Note that there is insufficient evidence on traffic and mitigation to grant planning permission.