

3.0: Evidence and Prioritisation of Issues

v 1.0 – 16/10/19

3.0 Overview:

The APC Environment Committee has taken an evidence-based approach to assessing the impact of speeding in the village, and this heavily influences the prioritisation of measures to improve safety. Clearly speed in itself is the primary factor in this, and this can be measured in a number of ways – those measures considered most significant are outlined below. It is also important to consider the impact that road configuration has: in particular on the relative space for pedestrians, and visibility for vehicles attempting to join or leave those roads. Incident history is another key influence, but as there is no definitive record of incidents or near misses on the roads in the village, we are attempting to compile recent and future information using data supplied by residents.

3.1 Traffic Surveys:

Oxfordshire County Council (OCC) Highways have carried out a series of traffic speed and volume surveys in Adderbury on behalf of APC:

Road	Survey Year			
	2012	2014	2017	2018
Aynho Road		Y		Y
Banbury Road		Y	Y	
Berry Hill Road				Y
High Street				Y
Horn Hill Road	Y			Y
New Road				Y
Oxford Road			Y	
Roads in Twyford (6 No.)				Y
Twyford Road		Y		

Although not measured separately, Milton Road is a continuation of Berry Hill Road. Considering both alignment and the junction with Horn Hill Road, if there is a variance then Milton Road is likely to experience higher volumes and speeds than Berry Hill Road. It is noted that all of the above roads are subject to a 30mph speed limit.

3.2 Compliance:

Highway engineers recognise that drivers adjust their driving to their surroundings, and will drive at a speed that the driver considers safe for the road and the road conditions. Drivers will drive below the speed limit when they consider it necessary.

The majority of drivers wish to drive in accordance with traffic regulations, and for highway design purposes this is generally taken to be 85% of drivers. The key to securing compliance from this type of driver is to provide clear indications of hazards and restrictions.

There is also a minority of drivers that appear to feel that traffic regulations are more 'optional' in nature, and for highway design purposes this is generally taken to be 15% of drivers. The key to securing compliance from this type of driver is to provide physical constraints and enforcement of speed / other restrictions.

3.3 Traffic Data:

The OCC Survey Data is thorough and detailed, with useful summaries provided. Survey locations were all within the 30mph zone: some were close to the edge of the zone and some well within it, and unsurprisingly where two locations have been used on the same road (Banbury Road), speeds are higher nearer the edge of the village – reflecting premature acceleration on exit, and the reverse on entry. Some locations were chosen where speed was the main concern, and others where traffic volume information was sought.

The underlying data for 2017 and 2018 is broken down into hourly time slots permitting direct comparison between roads. In some cases there is further break down by direction, affording an insight into whether the issues are greater in one direction than the other. 2012 and 2014 are summaries only, which may mask higher peak figures.

Traffic count is shown within speed bands enabling the timing and extent of traffic speed to be readily identified. This is of most relevance when trying to identify and isolate the impact of the heavy queueing on the arterial roads on the approaches to the traffic signals at the village centre. Despite the lowering effect of this twice-daily queueing, in many cases average speeds remain high, implying that speeds must be significantly higher at off-peak times.

3.4 Key Speed Indicators

An extract from the average speed data is below. This generally uses daily data averaged from the one week of 2017 or 2018 surveys, except Twyford Road, where only 2014 data is available. A gross check shows nothing unrepresentative in the days selected, although the presence of a parked vehicle adjacent to the Horn Hill Road data logger is reported to have provided some traffic calming. There is a large amount of data, and further analysis is possible. However, the following categories appear to give a clear picture. These categories are:

- **Mean (24h):** the average speed of all vehicles as measured in a 24 hour period.
- **85%ile (peak):** the highest hourly average of the speed that 85% of vehicles drive at or below. Ideally this will be at or below the speed limit for the road. Night and Day peaks are shown separately.
- **>45mph:** the number of vehicles exceeding 45mph (in a 30mph zone) in a 24 hour period
- **>60mph:** the number of vehicles exceeding 60mph (in a 30mph zone) in a 24 hour period

Road	Average	85%ile	85%ile	>45mph	>60mph
	Mean (24h)	(Peak hour - N)	(Peak hour - D)	Number	Number
Oxford Road:	38 mph	54 mph	42 mph	706	14
Twyford Road:	35 mph	47 mph	39 mph	216	2
Berry Hill Road:	34 mph	51 mph	33 mph	154	2
Aynho Road:	33 mph	48 mph	39 mph	224	6
Banbury Road:	30 mph	50 mph	37 mph	101	6
New Road:	29 mph	40 mph	36 mph	9	0
Horn Hill Road:	25 mph	38 mph	33 mph	3	0
Roads in Twyford:	18-23 mph	32 mph	29 mph	0	0
High Street:	19 mph	26 mph	24 mph	0	0

3.5 Configuration Risk

In addition to the concerns over speed, there are significant variances on the risks posed by road configuration, including the roadway, the footway, and the verges. The roads may be described as follows:

3.5.1 High Risk:

Oxford Road – no verges, front gardens obscured by walls, sub-standard footways, vehicle accesses with restricted visibility, no parked cars to provide traffic calming, frequent risk from overtaking vehicles.

High Street – no verges, no front gardens, standard footways, some vehicle accesses with restricted visibility, but many parked cars provide effective traffic calming.

New Road, etc. – no verges, some front gardens, standard footways, some vehicle accesses with restricted visibility, some parked cars providing some traffic calming.

3.5.2 Medium Risk:

Horn Hill Road – some front gardens, standard footways, vehicle accesses with restricted visibility, but parked cars provide some traffic calming.

Banbury Road – long front gardens, standard footways, vehicle accesses with reasonable visibility, off-road laybys give added space.

Twyford Road – no verges, front gardens, standard footways, vehicle accesses with restricted visibility, but parked cars provide some traffic calming.

Roads in Twyford – no verges, front gardens, standard footways, vehicle accesses with restricted visibility, but parked cars provide some traffic calming.

3.5.3 Low Risk:

Berry Hill Road – long front gardens, wide verges, no footways, vehicle accesses with good visibility.

Milton Road – all properties face onto side roads. Wide verges where these join Milton Road.

Aynho Road – reasonable verges, standard footway, most properties face onto side roads.

3.6 Interpretation

What is clear is that the five main roads into and out of the village have a significant, confirmed, quantified issue of speeding. Mean speed exceeds 30mph in all but one case, 85%ile is around 50mph, with all experiencing vehicles driven at more than twice the speed limit. This is highly concerning by every measure.

New Road and Horn Hill Road also have a speeding issue, but to a significantly lower level. Average speeds are within the speed limit, and cases of significant excess speed are low. The 85%ile does though remain high, and measures to dissuade rat-runners may reduce this small but significant number of offenders. The High Street benefits from the most compliant driving, encouraged undoubtedly by the physical constraints provided by numerous parked cars.

Twyford's internal roads issue appears to be predominantly to be one of volume rather than speeding, and is considered to be largely due to rat-running to avoid the queues for the traffic signals, and congestion during morning and evening peak flows. This issue will hopefully be reduced following the commissioning of the new traffic signals control system. It may be beneficial to get the Twyford roads re-surveyed to confirm that the problem has reduced. Work may be needed jointly with the Primary School to determine what can be done to reduce their contribution to congestion.

3.7 Incident History

There is no definitive record of incidents or near misses on the roads in the village. Only the most serious incidents require the involvement of the emergency services, and the involvement of one emergency service does not necessarily mean that the others are informed. OCC Highways are aware of incidents that result in damage to street furniture or structures, but have not historically collated records in a retrievable format. Many near misses have been experienced by residents, but as no near miss reporting system exists, there is no record of them.

Although the OCC traffic data referred to in 3.3 and 3.4 above should be sufficient to confirm issues and to prioritise responses, Thames Valley Police in particular are keen to understand the direct impact of speeding. In response we are attempting to compile information using data supplied by residents. Historical data is likely to be imprecise and incomplete, but any information that we can ascertain will be of value in building a more comprehensive picture.

Residents are therefore requested to forward any details they have of road traffic incidents or serious near misses in which speed was considered to be a factor to Mr Allan Ziff who is compiling this data on behalf of the Environment Committee. He can be contacted on allanziff@aol.com



RTI on Oxford Road 08/08/2019 – TVP had not been informed