

Proposed 20 mph speed limits on Cattofield Terrace / Cattofield Gardens / Picktillum Avenue and Picktillum Place (with associated speed cushions on the first two of these streets)

Summary of objections received during the public consultation and thereafter a response from roads officials

Of note, are that all the objections received relate to Cattofield Gardens.

- 1. There is no need to install the Speed Cushions; I have lived in Cattofield Gardens for quite some time and during that period I am not aware of there having been any incidents involving excessive speed or pedestrians being hit by vehicles. Also Cattofield Gardens is not a 'Rat Run', commuter traffic does not use the street as a cut through, however the Council may feel this will become the case if Speed Cushions are installed in the neighbouring street (Cattofield Terrace). I would suggest if the Council feel this will be the case then make Cattofield Gardens a dead end by blocking one end of the street, thus preventing through traffic.**

It is indeed the case, that the Road Safety & Traffic Management Team are concerned with the potential for commuter traffic to displace to Cattofield Gardens. Should Cattofield Gardens not have traffic calming features installed, the near proximity of the road to Cattofield Terrace would certainly make the route attractive to commuters.

The possibility of closing Cattofield Gardens is noted, however it is unusual to close existing through routes. In this regard, there would have to be an extensive informal consultation with local residents, and thereafter a statutory consultation to take into account local residents who wished to object. The statutory consultation would also take into account the wider view, thus allowing any concerned party the opportunity to object.

Furthermore, it is also usual to create a turning area when creating a non-through road, preferably a turning circle that can be negotiated by all vehicles in a forward gear. In this respect, Cattofield Gardens, by modern design standards, does not have the width to accommodate either a turning circle or a turning head. Consequently the attendant dangers of reversing service vehicles cannot be overlooked.

It is also of note, when implementing a mandatory 20 mph speed limit, that it would be usual to implement traffic calming measures on a non-through route of significant length. Essentially, it is a sure method of ensuring the majority of drivers utilising a road travel at an appropriate speed.

- 2. The installation of Speed Cushions will increase traffic noise as traffic will be required to slow down and engines will be revved to traverse the speed humps, the street is currently very quiet despite its close proximity to a main thoroughfare.**

Research indicates that there is very little change in the traffic noise level when narrow speed cushions are installed on a road. In fact, when considering roads that generally accommodate light vehicles, the traffic noise level actually reduces. The aforementioned is based on studies made alongside road humps in Slough and speed control cushions in York (Abbott et al., 1995a and 1997). Certainly, on a road with a significant proportion of buses and commercial vehicles noise levels can rise, but the vast majority of vehicles utilising Cattofield Gardens are light vehicles.

- 3. If the Speed Cushions are installed there will be an increased likelihood of vehicles being damaged, damage to sumps, exhausts and premature wear on suspension parts; please advise where in the Council the bill should be sent for the replacement of these parts when the time comes.**

Vehicles travelling over road humps at appropriate speeds should not suffer damage, provided the humps conform to the Highways (Road Hump) Regulations. In a study (Kennedy et al., 2004e) various types of vehicle were driven over road humps, and despite repeated passes at speeds up to 40mph no damage to the vehicles was observed. It was also seen that the forces generated when traversing road humps were comparable to those likely to be sometimes experienced during normal driving activities, such as driving over a very irregular surface or pothole, or mounting a kerb.

- 4. Currently there has been 20mph speed limits imposed for some time which have been very effective without the need for any additional disruption.**

Whilst the Road Safety & Traffic Management Team has no historical speed data for Cattofield Gardens, there is data for Cattofield Terrace, and the advisory 20mph speed limit has proven to be disappointing, with the average 7am to 7pm 85%tile speed dropping by only 1 to 2 mph to 29mph since its introduction.

- 5. Speed cushions make roads more dangerous. Most accidents happen at junctions, not in the middle of a residential street.**

Speed cushions don't save lives - they contribute to accidents and deaths.

Reducing speeds in residential areas can reduce accidents significantly and make injuries much less severe, particularly so when considering vulnerable road users such as pedestrians, cyclists and motorcyclists.

In 1996, the Transport Research Laboratory reviewed 20 mph zones in Great Britain (Webster and Mackie 1996). The uncontrolled study included seventy-two 20 mph schemes and used 5 years of before data and at least 1 year of after data (the average was 30 months). The researchers found that overall collision rates decreased 61%, pedestrian collision rates decreased 63%, child pedestrian collision rates decreased 70% and overall child casualty rates decreased 67%.

The London Road Safety Unit commissioned the Transport Research Laboratory to undertake a research project investigating 20 mph zones in London (Webster and Layfield 2007). The study evaluated 78 zones in an uncontrolled before and after study design with 5 years of before data and at least 1 year of after data (average was 3 years). Though the study did not have a formal comparison group, the authors were able to adjust estimates of casualty reductions to account for background trends on unclassified roads and found substantial casualty reductions in London's 20 mph zones.

Reduction in casualty frequency in 20 mph zones (adjusted) - London Study 2002

User group	All Casualties	KSI (Killed or Seriously Injured)
All road users	45%	54%
Children	42%	45%
Pedestrians	36%	39%
Pedal cyclists	21%	30%
Powered 2 wheelers	58%	79%

With regard to impact speed and the severity of injury to pedestrians a study (Ashton and Mackay, 1979) calculated impact speed distributions from at-the-scene pedestrian accidents for car and car derivatives. They found that 5 percent of fatalities occurred at impact speeds below 20mph, 45 percent occurred at less than 30mph and 85 percent occurred at speeds below 40mph. About 40 percent of pedestrians who are struck at speeds below 20mph sustain non-minor injuries however, this rises to 90 percent at speeds up to 30mph. Age effects also mean that elderly pedestrians are more likely to sustain non-minor injuries than younger people in the same impact conditions.

Furthermore the Royal Society for the Prevention of Accidents indicate that: -

- Hit at 40mph, 90 per cent of pedestrians will be killed;
- Hit at 35 mph, 50 per cent of pedestrians will be killed;
- Hit at 30mph, 20 per cent of pedestrians will be killed;
- Hit at 20mph, 3 per cent of pedestrians will be killed.

6. Police presence is the best way to slow traffic on residential streets.

Grampian Police will target their limited resources towards the distributor routes in Grampian Region with a significant history of both accidents and vehicular speeding; speeds at which, in the event of a collision, would cause major injuries/damage. Thus, on a residential section of road such as Cattofield Gardens, the ideal method of speed control is the installation of physical traffic calming measures to self-enforce the mandatory 20mph speed limit.

7. Speed cushions decrease property value

There is no evidence to suggest that either speed cushions or road humps have any effect on property prices. Indeed the counterpoint to the above statement would be that many families viewing a property on a residential street would regard traffic calming as a positive measure.

8. Speed cushions slow down emergency response time for police cars, fire appliances and ambulances (where every minute counts)

The Transport Research Laboratory found that delays to emergency vehicles per traffic calming measure are relatively small (Boulter, Hickman et al. 2001). Fire appliances and ambulances can also straddle the proposed narrow speed cushions. In this respect, the Scottish Ambulance Service is consulted with regard to proposed traffic calming schemes in the City and a preference for narrow speed cushions is often stated in response.

Of course, the journey of the emergency vehicle must be considered in detail, and in this regard the driver of such a vehicle will utilise distributor routes to arrive at the destination concerned, thus the number of traffic calming features to be negotiated will be very small. The overall effect on response times will therefore be negligible.

References

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