

20 mph Speed Limits outside Schools

A report by the Director of Kent Highway Services, to the Highways Advisory Board on 8th July 2008.

Summary

1. In November 2006, a report on the feasibility of introducing a Kent-wide policy of 20mph limits outside all Kent schools was considered by this Board. The report recommended retention of the existing policy for 20mph limits and zones but did not propose an extension to all schools due to cost and practicality of enforcement without traffic calming. A further report on this issue has been requested by Members.

Introduction

2. The safety of children particularly in the vicinity of the school gate is of the highest importance. However whenever introducing 20mph limits or zones, the County Council must address a number of issues:-
 - Will the introduction of such a policy actually reduce child pedestrian casualties?
 - What type of limit should be used and at what cost?
 - Could an enforceable and acceptable countywide policy be introduced?

Existing policy

3. The existing policy allows the introduction of 20mph limits or zones at any location where such measures can be justified, primarily in crash savings terms. The policy also includes other factors such as the socio-economic profile of an area along with the presence of local shops and schools however, it does not provide a specific priority for roads outside schools.

Will the introduction of such a policy actually reduce child pedestrian casualties?

4. A study of three areas has been carried out, this covered a total of 154 schools. The study looked at crashes involving child pedestrians who were injured between the hours of 07:00 and 09:00 in the morning and 15:00 and 17:00 in the afternoon during the 3 years 2005 to 2007. Saturdays and Sundays were excluded, as was the month of August.
 - This study revealed a total of 211 crashes (2 fatal, 18 serious, 191 slight). Of these 36 (0 fatal, 4 serious, 32 slight) or 17% were located 300m either side of the school gate.
 - However, the study shows considerable variation between areas with the highest percentage of 31% and the lowest percentage of just 8%.
 - All of the fatal crashes and 78% of the serious crashes occurred away from the school gate.
 - In one area even if all 6 reported crashes had happened at different schools 57 out of the total of 63 schools have gone three years without an incident being reported by the Kent Police.
 - Plots of the three areas are on display for Member's information.

20 mph Speed Limits outside Schools

5. A further study of all child pedestrian fatalities (up to and including 16 years old) during the last ten years shows that of a total of 29 fatalities none occurred within 300m of the school gate at the start or finish of the school day.
6. These figures suggest that the introduction of a Kent-wide policy of 20mph limits and zones outside schools, as a crash reduction measure would be ineffective in reducing the majority of child pedestrian crashes.
7. It is likely that the new crash reduction target beyond 2010 will feature further reductions in child pedestrian crashes particularly those involving fatal injuries. We will need to target our limited resources at those areas where crashes are being reported.
8. Outside most schools, the congestion caused by parents picking up or dropping off children combined with large numbers of pedestrian and cyclists creates a slowing of traffic at the very time that it is most needed. These crash figures indicate that despite the chaotic and dangerous appearance outside schools, crashes are more likely to happen away from the school where the speed of traffic is not constrained in this way.

What type of limit should be used and at what cost?

9. A vital policy issue is what type of 20mph limit should be adopted outside its 611 schools (not including independents), permanent, part time, part-time advisory or a combination of these.
10. Permanent limits would see the limit operating all day every day. They would require the introduction of a Traffic Regulation Order (TRO) and road signs. The estimated cost for each site would be approximately £7,150 which includes signs, posts, implementation, design fees, safety checks and in street lit areas lighting of the signs as required in the Traffic Signs and General Regulations and Directions (TSGRD) EDF connection and the TRO. This equates to some £4.1m for all 611 schools. This cost estimate does not include traffic calming.
11. Part-time limits also require a TRO and it is likely that special authorisation would be required. Such limits would require specialist signs that would operate on a timer system. Signs currently used in Scotland have a 20mph speed limit sign with flashing lights at the top and bottom of the sign. These signs are not currently included in TSRDG and would also require special authorisation. Timers would need to be reset annually to take account of any changes to the schools start and finish times and holidays. The estimated cost here would be some £9,400 per school, as well as the costs described above all signs will require an electricity supply. The estimated cost for all schools would be £5.7m. Further costs associated with these signs include a higher level of maintenance and for re-setting the timers.
12. Part-time advisory limits are basically the same as the system described in paragraph 10, except that being advisory no TRO is required, so the cost would be about £8,100 per site or £5m

Could an enforceable and acceptable countywide policy be introduced?

13. Most activity outside schools takes place at the start and finish of the school day, so logically the limit should be consistent with those times. The limit would not be appropriate at weekends or during school holidays and the lower speed limit should be in place only at those times to be self-enforcing and understood by the motorist. It should be noted that when variable limits were monitored in trials outside schools very little reduction in speed was observed, unless speeds were already low, typically not above

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24mph. Research for the Department of Transport on the effectiveness of 20mph limits states “that where speed limits alone were introduced, reductions of only about 2 mph in ‘before’ speeds were achieved. 20 mph speed limits are, therefore, only suitable in areas where vehicle speeds are already low (the Department would suggest where mean vehicle speeds are 24 mph or below), or where additional traffic calming measures are planned as part of the strategy”.

14. The view of the Kent Police is that 20mph zones and limits should be self-enforcing. This means that the majority of limits and zones outside Kent’s schools would require traffic calming features. Not only would this be restrictively expensive but with many schools on “A” and “B” class roads, such features, particularly road humps could not be used. In addition, traffic calming features would be permanent and this does not fit with the need to have the limits only in place when they are actually needed. Drivers are likely to resent having their speed physically reduced when the need for slower speed exists only at start and finish of school days. Members have also concluded previously that physical traffic calming measures should be seen only as a last resort to specific crash and speed problems.
15. If a countywide policy were adopted then a priority rating system would need to be developed to see which schools should be done first. Crash data would play a part however the speed, levels of traffic and HGV flow may all need to be taken into account. Such a process would require a very considerable amount of work and a number of years to implement. I believe we would be challenged as schools discovered how far down the list they were. Even if we progressed at 50 schools per year starting from next year 09/10 it would take approximately another 13 years to achieve.

Conclusions

16. On the three key issues there appears to be no case for implementing a countywide policy for the introduction of 20mph limits outside all Kent’s schools. Crash savings would be minimal and unlikely to significantly contribute to any new crash reduction target. The cost is prohibitive, the speed limits would be unenforceable and the time frame to implement such a policy excessive.

Recommendations

17. Subject to the views of this Board, it is proposed to recommend to the Cabinet Member for Environment, Highways and Waste that:
 - (i) The County Council should not adopt a county-wide policy for the introduction of 20mph limits or zones outside all Kent schools;
 - (ii) The County Council should retain its existing policy of implementing 20mph limits or zones at locations where there is a clear and justifiable need for the scheme;
 - (iii) The effects of advisory part-time limits in the county should be investigated further and a pilot involving 6 sites where this could be implemented should be developed. The potential costs and objectives of this scheme will be brought back to this Board towards the end of the financial year, seeking funding during 2009/10. If this proves effective then further schemes could be considered.

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