
**Meeting of Executive Members for
City Strategy and Advisory Panel**

11 December 2006

Report of the Director of City Strategy

SIX MONTHLY REVIEW OF SPEEDING ISSUES

Summary

1. This report sets out a policy framework for members to decide where vehicle activated signs (VAS) are located to reduce casualties and road danger.
2. The report is also the first of a series of six monthly assessments of speeding issues to be reported to the council. This initial report covers the period 1 May – 31 October 2006.
3. The report sets out how complaints of speeding have, and will be, verified in the future and the choice of remedial action to be taken where necessary.
4. The report categorises roads where speeding issues have been identified on a scale of one – four, with one being the highest priority.

Background

5. Casualty reduction is a principle objective of the Council's Local Transport Plan (LTP) and its Road Safety Strategy.
6. Speed is a major factor in the cause of casualties on the road. This can be either vehicles exceeding the speed limit or vehicles being driven at an inappropriate speed for the road conditions.
7. As part of an on-going programme to achieve York's road safety targets through reducing speed, officers were asked to identify locations for speed reduction in the City to support works already being carried out as part of the Capital Programme.

Speed

8. Speed is a significant causal factor in at least one third of all road casualties (TRL Report 323 *A New System for Recording Contributory Factors in Road Accidents*). Consequently, the adoption of road safety measures to reduce speed and the driver behavioural aspects of speeding have the potential of reducing the number of casualties.
9. There are also indirect negative health effects of traffic speed. Fast moving traffic discourages physical activity by inhibiting walking and cycling in urban and rural areas, particularly amongst children. Moreover, speeding traffic creates noise pollution, severs communities and can undermine economic regeneration.

Inappropriate Speed

10. An inappropriate speed is that which is below the posted speed limit and consequently below the usual enforcement thresholds. According to research driving too fast for the road conditions is more likely to be a factor in accidents than exceeding the speed limit.
11. Inappropriate speed is likely to occur at the point of a hazard, such as a bend or junction, or at a time of poor weather or visibility.
12. Encouraging drivers to adjust their speed to suit the conditions is particularly important, since driver error is the major contributory factor in 95 per cent of accidents.

Vehicle Activated Signs

13. Vehicle activated signs (VAS) have been developed as an intervention to address the problems of inappropriate or excessive speed. They have generally been applied where conventional signing has not been effective. VAS can be used to enforce speed limits, encourage driving at safer speeds or warn of an on-coming danger.
14. VAS do not usually target all drivers, but only drivers exceeding the advertised speed limit or not driving at a safe speed for the particular hazard. York's road safety strategy recognises that driver behaviour is the significant cause of crashes. The application of VAS targets only the proportion of drivers that are at risk due to their behaviour, therefore is an appropriate and practical application of the strategy.
15. The Department for Transport states that;

"Vehicle activated signs should be considered only when there is an

accident problem associated with inappropriate speed that has not been satisfactorily remedied by standard signing and where safety cameras and related signs are not a cost effective or otherwise appropriate solution.”

16. The Transport Research Laboratory (TRL) carried out an evaluation of the effectiveness of over 60 VAS installations on rural roads in Norfolk, Kent, West Sussex and Wiltshire. The trial assessed the impact of the signs on speed and injury accidents, and also drivers’ understanding of the signs.
17. The study found the signs appear to be very effective in reducing speeds, particularly those of the faster drivers who contribute disproportionately to the accident risk. The study also found a substantial accident reduction had been achieved at the VAS locations.
18. As reported to EMAP on 30th October, VAS have been installed at nine trial sites across the city. The results of the York trials indicate that average traffic speeds and the percentage of vehicles exceeding the speed limits in force have been reduced at nearly all the sites where local data has been collected. However, the trials are showing that at some sites there is a drop off in effectiveness after about six months. Annex C lists the locations of the existing VAS.

Site Selection

19. The Department for Transport recommends that the following two factors are used as the major consideration in the selection of VAS sites;
 - 1 The number of speed-related accidents. Detailed accident investigation should also be undertaken to identify the dominant accident patterns
 - 2 Evidence of inappropriate speed for the conditions, such as on the approaches to bends and junctions. Monitoring of traffic speeds should be undertaken to establish that a problem with inappropriate speed exists. The collection of speed data prior to the installation of the vehicle activated sign to enable the estimation of a suitable threshold speed for the sign to display the message.
20. A data led method of assessing all speeding issues in York was approved at the Meeting of the Executive Member for City Strategy and Advisory Panel on 30 October 2006. This established that speeding issues should be assessed against the following criteria:

a. Injury accident record

- 1 The assessment must consider the injury accident record for the preceding three years based upon North Yorkshire Police data.
- 2 Injury accidents are prioritised on severity using the categorisation:
 - fatality
 - serious injury
 - slight injury

b. Speed data

- 1 The primary measures used to assess speed data should be the mean speed and the 85th percentile speed (i.e. the speed at or below which 85 cars out of 100 travel in free flow conditions).
- 2 The mean speed is calculated by adding together every individual recorded vehicle speed and dividing this figure by the total number of vehicles recorded in the survey. To ensure that the mean speed figure is statistically reliable a speed survey should be conducted over a period of 7 days (24 hours a day).
- 3 National guidance recommends assessing 85th percentile speeds using the following formula; speed limit + 10% of the speed limit + 2 mph. The 10% of the speed limit is allowed to account for any inaccuracies in a speedometer and the 2 mph takes into account any driver lapses i.e. drivers drifting over the speed limit by mistake.
- 4 The table below summarises the thresholds above which vehicle speeds are regarded as a problem:

Speed Limit	Threshold (mean speeds)	Threshold (85th percentile speeds)
20 mph	20 mph	24 mph
30 mph	30 mph	35 mph
40 mph	40 mph	46 mph
60 mph	60 mph	68 mph

Prioritisation of speeding issues

21. The council receives complaints about speeding vehicles from a number of sources including residents, elected members and representatives of local groups, such as resident associations.
22. Between 1 May – 31 October 2006, 87 roads were identified by residents, elected members, Ward Committees, Parish Councils and representatives of local groups as having a speeding problem. **Annex A** provides an assessment of those sites where speeding has been brought to the Councils attention.
23. Based on the available speed data and the injury accident record, each road has been categorised using a scale of 1 - 4, with 1 being the highest priority, as shown in the following table:

Category	Speed	Casualties	Priority	Treatment
1	High	High	Very High	Speed management measures
2	Low	High	High	Casualty reduction measures
3	High	Low	Medium	Speed management measures
4	Low	Low	Low	None

24. The latest injury accident records, which detail casualties occurring on specific roads for the period 1 July 2003 – 30 June 2006, have been used to reach this categorisation (Annex A). For longer lengths of road (such as main arterial routes) the casualty search focused on the section where the speeding issue was identified.
25. Existing speed data, recorded between 2002 and 2006, has been used in the initial assessment process. Some of these surveys, however, have not been conducted over a 7 day/24 hour period. Due to time, staffing and budgetary constraints it has not been possible to undertake any further speed surveys since the data led methodology was approved by Members in October. Future six monthly reports will include comprehensive speed survey data. The data has been analysed in line with the approach recommended by the DfT for the introduction of VAS.
26. In place of 7 day/24 hour speed surveys existing data has been used to prioritise the location of VAS and other speed reduction interventions. Future reports will be based upon 7 day/24 hour data. This review of the roads categorised the 87 requests as follows;

- Category one = 17 (subject to further speed data)
 - Category two = 15
 - Category three = 8
 - Category four = 41
27. It is proposed that for future assessments, where data shows a high casualty rate, speed surveys will always be conducted in order to provide a complete assessment.

Consultation

28. North Yorkshire Police have been consulted and support the fundamental principles of the approved data led method of assessing speeding issues.

Proposals

- A. To retain the existing nine VAS at their current locations and to implement VAS at sixteen sites in York based on evidence of a known excessive or inappropriate speed by all classes of vehicles and casualty problems.
- B. To develop a programme of Speed Management Schemes, from the list of **category one** roads, for implementation as part of the 2006/07 Capital Programme, subject to budget allocation.
- C. To develop a programme of Local Safety Schemes, from the list of **category two** roads, for implementation as part of the 2006/07 Capital Programme, subject to budget allocation.
- D. To give approval to VAS sites funded by Parish Councils and Ward Committees which meet the set criteria and to develop a list of potential Ward Committee and Parish Council funded speed management schemes.
- E. To continue to monitor speeds & the injury accident record on roads reported by the public, in particular to carry out 7 day/24 hour speed surveys on **category one and two** roads.
- F. To monitor and report on the short and long term impacts of VAS introduced in York in 2006/07 and to review the performance of these first VAS sites in six months time and all sites thereafter at least every twelve months.

Analysis

Proposal A

30. Proposal A will be a valuable addition to York's road safety strategy and implementation of its plan to make the roads safer for all users. Category 1 sites will be those where recorded speeds are significantly above the posted speed limits, whilst category 2 locations are where speeds are within the posted speed limited but inappropriate for the local conditions. The locations proposed for 16 VAS are listed below and approximate locations are shown on the plan Annex B:

- Huntington Road - outbound
- Melrosegate - towards Hull Road
- Moor Lane (inbound and outbound)
- Water Lane - inbound
- Elvington Lane (inbound and outbound)
- B1363 - South of Mill Lane junction - inbound
- Beckfield Lane - 2 signs
- Mill Lane/The Village – from the village
- Stockton Lane - (inbound and outbound)
- York Road Haxby - outbound into Haxby
- Field Lane Heslington - towards Hull Road
- Wetherby Road outbound

Proposal B

31. Proposal B will ensure that roads assessed as category one are considered for treatment as part of the 2007/08 Speed Management Capital Programme, subject to budget allocation. Works traditionally funded from this area include engineering schemes, road markings, signage and publicity campaigns as appropriate for the specific speeding problem. This proposal will ensure the greatest rate of return from speed management capital spending in 2007/08. A review of ongoing and proposed road safety schemes should be included in this process to ensure there is no overlap and that new opportunities are sought for alternative approaches to reducing speed.

Proposal C

32. Proposal C will ensure that roads assessed as category 2 are considered for treatment as part of the 2007/08 Road Safety Capital Programme, subject to budget allocation. On category 2 roads there is a significant injury accident record, but vehicle speeds are within the accepted thresholds. This would indicate that the casualties are not speed related

and that alternative treatments need to be considered, including engineering, publicity or education interventions. A review of ongoing and proposed road safety schemes should be included in this process to ensure there is no overlap.

Proposal D

33. Proposal D will allow Ward Committee's and Parish Council's to fund speed management schemes on category 1 and 3 roads, that are not included in the 2007/08 Capital Programme. The approval of speed management schemes, including VAS, that are funded in this way will need to be closely monitored to ensure that any works or installation of VAS are in accordance with Council policies and that schemes are implemented consistently across the City. This will ensure the effective delivery of the Road Safety Strategy that was included in the Second Local Transport Plan.
34. A Ward Committee or Parish Council will not be able to take forward any speed management scheme including the installation of VAS without Director of Strategy approval.

Proposal E

35. Proposal E will ensure that the Council can continue to make informed decisions on future requests for measures to reduce reported speeding problems. The use of 7 day/24 hour speed surveys provides the most accurate data on which to base decisions, therefore it is recommended that these are applied.

Proposal F

36. Proposal F is considered good practice in ensuring that the council achieves value for money, achieves its objectives and can continue to improve its effectiveness. In particular the local effectiveness of VAS will need to be known to inform future decisions on where these signs are most effective at reducing speeding and road danger.

Corporate Objectives

37. The council's Improvement Statement to increase the use of public and other environmentally friendly modes of transport is relevant to this report. Fears of being a casualty are a real deterrent to more people walking and in particular cycling. By implementing a robust programme of speed management measures to reduce excessive speeding, which targets the minority of drivers whose driving behaviour poses the greatest risk to others, overall safety can be improved and an increase in active transport use achieved.

38. A data led approach of assessing speeding issues and prioritising schemes meets the Council's corporate objective to create a Safer City. It supports the aims and objectives of the Road Safety Strategy and the Speed Management Plan included as part of the Second Local Transport Plan.

Implications

Financial

39. It will be possible to amend elements of the 2006/07 capital programme to accommodate requests for VAS in York. The expected cost of the additional sixteen sites is £48000.
40. It is proposed that a proportion of the 2007/08 Speed Management Capital Programme will be reserved to enable the council to respond to further requests for speed reduction schemes.
41. It is proposed that a proportion of the 2007/08 Road Safety Capital Programme will be allocated to roads assessed as category two in this review.
42. A proportion of the 2007/08 Capital Programme will still be allocated to pro-active schemes developed by the road safety team to address identified casualty and speeding problems.

Human Resources (HR)

43. There are HR implications in terms of manpower to undertake and analyse 7 day/24 hour speed surveys. There are also HR implications in terms of manpower to develop a programme of schemes for implementation in 2007/08. These activities can be accommodated within existing staffing levels.

Equalities

44. There are no equality implications.

Legal

45. There are no legal implications.

Crime and Disorder

46. Speeding is a criminal offence and the Council has a responsibility to deliver an effective Speed Management Strategy.

Information Technology (IT)

47. There are no IT implications.

Property

48. There are no property implications.

Other

49. There are no other implications.

Risk Management

50. In compliance with the Council's risk management strategy the risks arising from the recommendations have been assessed.

Strategic

51. There are no risks associated with the recommendations of this report.

Physical

52. Road accidents by their very nature are unpredictable and it is always possible that an injury accident will occur on a route that has been assessed where no action was taken. The data led method of assessing speeding issues ensures that routes with a casualty record are prioritised.

Financial

53. There is a potential risk that demand for speed management treatments outweighs the capacity to deliver. All potential speed management engineering treatments will be subject to budget allocation
54. When considering Ward Committee and Parish Council funded schemes, the on-costs of certain measures need to be factored in.

Organisation/Reputation

55. There is likely to be opposition to a recommendation to take no action following the assessment of a speeding issue. However, the data led method of assessing speeding issues enables one to justify instances when no action is deemed appropriate.
56. Measured in terms of impact and likelihood, the risk score for all these risks has been assessed at less than 16 (see table below). This means that at this point the risks need only to be monitored as they do not provide a real threat to the achievement of the objectives of this report.

Risk Category	Impact	Likelihood	Score
Strategic	Very Low	Remote	2
Physical	Very High	Remote	5
Financial	Medium	Possible	9
Organisation/Reputation	Medium	Probable	12

Recommendations

57. That the Advisory Panel advise the Executive Member that:

The proposals A – F should be approved.

Reason: Evaluation of Vehicle Activated Signs (VAS) has shown that they can reduce speeds and road danger. Consequently, their use in York, based on evidence of a known speed and casualty problem, has the potential to reduce casualties in the city. Conducting 7 day/24 hour speed surveys on category one and two roads will ensure that the data is reliable and reflects the speed profile of the road. Treating roads identified as category one and two in the 2007/08 Capital Programme will ensure the greatest rate of return from capital spending. Allowing Ward Committee's and Parish Council's to fund schemes on roads categorised as one and three, will enable roads to be treated that are not included in the 2007/08 Speed Management Capital Programme. Monitoring of roads assessed as low priority will enable an effective response should the situation change over time.

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Background Papers

Speed Management Report

Meeting of Executive Members for City Strategy and Advisory Panel, October 2006

Second Local Transport Plan 2006 –11

(Including Road Safety Strategy and Speed Management Plan)

TRL Report 548 Vehicle Activated Signs – a large scale evaluation.

TRL Report 323 *A New System for Recording Contributory Factors in Road Accidents*

Annexes

- Annex A Speeding Data (1 May – 31 October 2006).
- Annex B Vehicle Activated Sign Map
- Annex C Location of Vehicle Activated Signs