

CHESHIRE EAST COUNCIL

Cabinet Member for Environmental Services

Date of Meeting: 19th October 2010
Report of: Head of Regeneration
Subject/Title: Traffic Calming Policy

1.0 Report Summary

- 1.1 The Borough Council currently does not have a policy on the installation, maintenance or removal of traffic calming schemes within the highway.
- 1.2 Various traffic calming schemes have been implemented throughout the Borough over a number of years. These schemes were generally safety or environmentally led. However, some schemes originate from private developers' designs that incorporate features identified in national and locally applied design aid documentation. The safety related schemes were implemented to reduce killed or seriously injured (ksi) incidents and environmental schemes were installed in response to resident's road safety concerns with the benefit of majority support.
- 1.3 Over the past 20 years, a great deal of experience has been gained both nationally and within Cheshire on the appropriate application of traffic calming. This Traffic Calming Policy has been written with the benefit of that experience.

2.0 Recommendation

- 2.1 That the Cabinet Member for Environmental Services approve the Traffic Calming Policy set out in Appendix A to the report.

3.0 Reasons for Recommendations

- 3.1 Cheshire East requires a formal policy on the installation, maintenance and removal of traffic calming within the Borough.

4.0 Wards Affected

- 4.1 This report affects all wards equally.

5.0 Local Ward Members

- 5.1 This report affects all wards equally.

6.0 Policy Implications

- 6.1 There are no human resources implications of the recommended option.

7.0 Financial Implications (Authorised by the Borough Treasurer)

- 7.1 The Strategic Director confirms that the costs of implementing this policy will be met from existing budgets.

8.0 Legal Implications (Authorised by the Borough Solicitor)

- 8.1 The legislation relating to road humps and traffic calming measures is detailed in Appendix B. Whilst there are statutory requirements for the undertaking of consultation prior to the construction of road humps and traffic calming measures, full details of which appear in Appendix B to this Report, the legislation is silent as to the level of consultation to be undertaken when those measures are being removed. It is suggested that an appropriate level of consultation would be equal to that undertaken when installing the measures. Such consultation differs according to which legislation was used to install the measures.

9.0 Risk Management

- 9.1 The Authority currently does not have a formal policy to deal with Traffic Calming this proposal rectifies this situation enabling a consistent approach with dealing with the installation, maintenance or removal of traffic calming schemes.

10.0 Background and Options

10.1 Introduction

The Environment Portfolio Holder has requested a review of Traffic Calming across the Borough. Under the previous County Council administration various traffic calming schemes have been implemented. Most of these schemes were either safety or environmentally led. The safety related schemes were implemented to reduce killed or seriously injured, (ksi's), incidents and environmental schemes were installed in response to resident's road safety concerns with the benefit of majority support

10.2 Background

The safety related schemes were subject to a review of ksi statistics for the three years preceding consideration and were subject to after-studies to assess whether the implemented control measures achieved the desired outcomes. Environmentally led schemes were usually provided in response to local demand to deal with identified problems in relation to traffic speed and volume. Requests for traffic calming may have originated from elected members, or residents, and may have been received from individuals or in the form of petitions. After-studies were also carried out to determine if objectives of these schemes had been achieved.

The majority, (over 90%), of traffic calming schemes have been implemented on environmental grounds and schemes have been funded mainly through the Local Transport Plan(LTP), Such schemes were assessed and justified

through analysis of traffic characteristics and collision data and approved by the former Local Joint Highways Committees, (LJC's). These schemes were principally intended to reduce the number and severity of road traffic collisions or to limit the potential for such incidents. They were also intended to reduce traffic volume on through routes and improve the environment for residents by encouraging walking, cycling and the use of public transport. These objectives are in line with the government's objectives of reducing traffic growth by promoting alternative forms of transport and reducing ksi's for which there are a number of local and national targets.

10.3 Other Authorities

There are several highway authorities who are reviewing the need for traffic calming on their networks. The drivers for these reviews range from complaints from the public, continuing need and efficiency of the network. Chief amongst these highway authorities is the London Borough of Barnet, (LBB). LBB had begun a significant road resurfacing programme and had undertaken a review of traffic management measures within that context.

LBB's Traffic Calming code of practice sets out that prior to any resurfacing work a reassessment of the need/appropriateness of existing traffic calming measures shall be undertaken. This includes consultation with Ward Members and residents. Flintshire County Council and Bolton Council are also reviewing the continuing need for traffic calmed, road humps/speed cushion schemes.

10.4 Traffic Calming

The concept of traffic calming is primarily concerned with reducing the adverse effects of motor vehicles on built-up areas. This usually involves reducing vehicle speed and volume, improvements for pedestrians and cyclists and improvement of the local environment. Traffic control devices such as speed limit signs are regulatory measures that require enforcement whilst traffic calming measures are intended to be self enforcing. Traffic calming measures consist of a variety of measures often used in combination. Typically these are:

- Road humps, speed cushions, speed tables and plateau junctions (vertical deflection)
- Chicanes and build out's (horizontal deflection)
- Prioritised, single direction, build outs
- Signs & lines and gateway features
- Vehicle activated signs (temporary or permanent)

National legislation and advice on traffic calming is set out in Appendix B to this report.

10.5 Issues

Traffic calming features, particularly those that involve vertical deflection, are not universally liked. There can be areas of objection from both road users and local residents:

- Can be unpopular with emergency services, buses and cyclists
- potential damage to buses and discomfort for passengers
- potential damage to motor vehicles
- possible noise/vibration issues for residents

On the other hand, road humps and speed cushions are an effective measure in reducing vehicle speeds. National standards, determined by the Department for Transport in accordance with the findings of the Transport Research Laboratory, are intended to minimise potential problems provided vehicles are driven at appropriate speeds.

The condition of the Council's road network is giving rise to concern both in rural and urban areas. The Borough's Highway Maintenance Budget is under increasing pressure due to a deteriorating network condition and the effects of the last two winters such that a sizeable backlog of maintenance work is building up. The majority of traffic calming schemes have been implemented in residential streets to reduce traffic volumes and/or vehicle speeds and a significant proportion of these roads are in need of resurfacing. Where there are road humps or speed cushions, the cost of the works increase and less resurfacing can therefore be carried out in the Borough. There are also ongoing maintenance issues on individual traffic calming features, as they are expensive to repair and keep safe.

10.6 Way Forward

In view of the pressures surrounding the Highway Maintenance Budget, the deteriorating network and traffic calming maintenance requirements, it is proposed that, where highway maintenance works would require the reinstatement of any traffic calming feature likely to make the maintenance operation more difficult or more costly, the need for those features should be reviewed. The aim of the review would be to assess the ongoing need for the features, look at the original case made for the scheme and to determine if it is delivering the original objectives. If not, the humps and speed cushions or other features should be considered for removal as part of the maintenance works. A proposed Traffic Calming Policy, including a review process, is set out in Appendix A to this report.

10.7 Summary

Road humps speed cushions and other features have been installed on the Borough's road network for both accident reduction and environmental

reasons. Due to a variety of concerns, including those expressed by the public and the emergency services, coupled with network condition and budget issues, the continuing need for a particular scheme should be reviewed where highway maintenance works are programmed. The review will determine whether the traffic calming features are retained or removed.

11.0 Overview of Year One and Term One Issues

11.1 Not applicable.

12.0 Access to Information

The background papers relating to this report can be inspected by contacting the report writer:

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Traffic Calming Policy

Introduction

1. Traffic Calming is an important element in local a road safety strategy and as such is an important technique in reducing both the number and severity of road accidents in Cheshire East. The Council is committed to the promotion of Traffic Calming schemes where the benefits can be shown to outweigh any disadvantages. In particular the Council will give priority to those schemes where the accident reduction potential is the greatest.
2. As part of any traffic calming scheme design the likely effects of vehicle-generated noise, vibration, exhaust emissions and air quality will be examined and any detrimental effects mitigated as far as possible. The design and implementation of Traffic Calming schemes shall follow the guidance set out in the Department for Transport's (DfT), Local Transport note 1/07. This deals with government legislation, highway user issues, various types of traffic calming, consultation and prioritisation.

Scheme Assessment

3. New sites will only be considered for traffic calming where there are personal injury accidents on the proposed roads. Sites that are to be considered will be prioritised using an approved assessment procedure, set out in the appendix, that takes into account factors such as accidents, speeds, traffic flow, through traffic, pedestrian and cycle generators, schools, development and community severance.
4. Before detailed investigations of priority sites are commenced, an initial review will be undertaken to determine whether traffic calming is the appropriate solution. Where traffic calming a road or route could displace traffic onto equally unsuitable roads or routes an area wide study will be undertaken.
5. Where possible and beneficial Traffic Calming measures will be considered as part of highway, traffic management, safety, structural maintenance and development schemes. Sites that are externally funded maybe progressed irrespective of their priority on the Council's programme provided they are acceptable in highway terms and satisfy the reduction in accident criteria.
6. Before any schemes are, implemented informal and formal consultation will be carried out with the statutory consultees, emergency services, bus operators, local Member and the residents of properties immediately adjacent to be proposed scheme.

Review and Reassessment

7. Where structural maintenance schemes are planned on traffic calmed roads or routes the opportunity shall be taken to reassess the need of the traffic calming scheme. Criteria for the review are set out in the appendix.
8. For safety related schemes a review of the circumstances that led to the implementation of the scheme shall take place. If the circumstances have not materially changed then the scheme shall remain in place. If circumstances have changed then the scheme shall be reviewed against the criteria which led to its implementation.
9. For environmental schemes, a similar consultation shall be carried out to that which was carried out to implement the original scheme. The default proposal being that the road humps and speed cushions be removed should there not be majority support for them to remain, or, following assessment, where the objectives of the scheme have not been achieved. The Portfolio holder for Environmental Services will make the final decision.
10. In all cases the local Members, Town and Parish Councils, emergency services and bus operators shall be consulted along with the local residents living directly adjacent to the scheme. Each dwelling fronting the scheme shall be provided with a questionnaire where the residents can set out whether they are in favour of the road humps and speed cushions being removed or not.
11. If there is support for the Traffic Calming features to remain then a further review is to be carried out in order to consider any alternative measures which could be taken in preference to the reinstatement of the vertical deflection features.

Appendix to Policy

Review of Traffic Calming Scheme or Features at a location where Highway Maintenance is Proposed.

Review Criteria

Situation	Traffic Calming Installed as Environmental	Traffic Calming Installed as Casualty Reduction (ksi) and 20mph Zones including Schools
No Maintenance Required	No Change	No Change
Maintenance Required to Humps/Cushions only		
0% to 30%	No Change	No Change
31% to 70%	Reassess Scheme	No Change
71% to 100%	Reassess Scheme	Reassess Scheme
Surface Dressing Scheme		
Encompassing Part of Traffic Calming Scheme	No Change	No Change
Encompassing All of Traffic Calming Scheme	No Change	No Change
Carriageway Resurfacing/Reconstruction		
Encompassing Part of Traffic Calming Scheme	Reassess	Reassess
Encompassing All of Traffic Calming Scheme	Reassess	Reassess

ASSESSMENT OF NEW TRAFFIC CALMING PROPOSALS

1. There is a proven benefit in road safety terms for all road users by the installation of traffic calming in certain locations. This assessment process aims to be data led to ensure that only schemes which provide proven benefits are installed using the available funding. This data led approach aims to ensure value for money. The assessment process utilises site specific data to highlight, prioritise and evaluate schemes that require treatment. This will ensure that schemes with high accident rates are given a higher priority. It is proposed that a trigger level will be set before any schemes are taken forward to consultation and construction. In general, A and B class and other strategic urban roads would not be subject to conventional physical traffic calming.

ASSESSMENT PROCESS

2. The assessment process will produce, after detailed surveys and analysis, a list of priority sites to be taken forward to implementation. All sites assessed will have an accident history that may demonstrate a need for traffic calming or another form of road safety engineering works.
3. It is recognised that the number of sites to be implemented will be influenced by the available budgets. It is considered sufficient to take steps to highlight and prioritise schemes for inclusion in a five year programme as part of this assessment.
4. The criteria used to assess each scheme will be: -
 - Accidents
 - Speed
 - Vehicle Flow
 - Pedestrian generators (potentially hazardous locations within scheme area)
 - Severance (the number and category of pedestrians crossing the road)
5. A score for each scheme will be formulated, using the above criteria, to generate a prioritised list of schemes. Pedestrian and vehicular traffic counts together with speed measurements will be obtained for each site. Detailed accident statistics will be used in this assessment. The data should show extensive information for each of the accidents including: -
 - Weather conditions
 - Directions of travel for vehicles/pedestrians
 - Descriptions of accident
 - Time of incident
 - Number of casualties and severity
6. It may be proved when investigating each site at this stage, that traffic calming is not the most suitable option or the site is unable to accommodate traffic calming. In these circumstances, the site should be considered for inclusion in

an alternative programme for implementing road accident reduction measures and removed from this assessment.

7. On completion of the assessment at this stage, each site will be ranked in order of priority. As discussed previously, there should be a threshold below which it is difficult to demonstrate that a measurable road safety benefit can be obtained. This threshold has been set following due consideration of data gathered relating to previous traffic calming schemes implemented by Cheshire County Council and Cheshire East Council, and also taking account of the Government targets for accident reduction. The threshold has been established at a score of 75 points. The effect of this is that priority schemes with a priority score above 75 would go forward for implementation in line with available budgets. When schemes with a priority score below 75 come to the top of the list for implementation then a new assessment would be triggered. This threshold may require reviewing in line with the Governments accident reduction targets, and should also be reviewed on a regular basis.
8. Before any physical traffic calming is installed, a full consultation will be carried out including the Emergency Services, bus operators, Local Members, Town and Parish Councils and the residents of the affected roads.

Criterion utilised to assess Proposed Traffic Calming Schemes

Criterion	Range	Priority Factor
1. Vehicle speed (85th percentile)	0-5	10
Desirable speeds 20 mph Residential	6-10	15
- speed limit other roads	11-15	20
	16-20	25
2. Vehicle Flow veh/hour	Per 100	1
Per 100 vehicles for peak hours	over 1000	10
3. Accident level, vehicle occupants	fatal	x6
(personal injury accidents/km	serious	x4
Over 3 year study period)	slight	x2
Accident level, vulnerable road users	fatal	x7
(personal injury accidents/km	serious	x5
over 3 year study period)	slight	x3
4. Pedestrian generators		
(this list is not exclusive)	school entrances	6
	bus stops	3
	community centers	3
	doctor surgeries	3
	elderly, nursing	
	homes, hospitals	3
	nurseries, play	
	groups etc.	3
5. Severance	0-20 second wait	0
(Difficulty crossing the road)	20-60 second wait	5
Waiting time	>60 second wait	10
% vulnerable pedestrians (child/elderly)	>10%	5

Note:

If a proposed scheme achieves a score above the threshold, following the traffic assessment shown above, an additional 15 points may be added to the score should match funding be available from Town and Parish Councils or other external source.
Ref: DfT LTN 1/07 and Slinn et al 1998

Site Assessment Example.

Stage 1

A request has been received for a section of a Cheshire East road to be assessed for physical traffic calming. The road is currently subject to a 30 mph limit and is in a heavily built up area.

The information for a stage 1 assessment is as follows:-

9 serious and 21 slight accidents are recorded for the 10 year study period.
The road is 1100m long

The Accident per Kilometre rate is calculated as $\frac{30 \times 1000}{1100} = 27.27$

This level of accident per kilometre rate when judged against other roads in the borough is considered to need further investigation for traffic calming. It is therefore proposed to carry out a full assessment.

Stage 2

The factors to be used for assessment are shown below.

Factor	Data	Score
85% percentile speed	36	15
Vehicle flow	2750	10
Accidents vehicle occupants	7 serious	28
	17 slight	34
Accidents vulnerable road users	2 serious	10
	4 slight	12
Pedestrian generators	bus stop x2	6
	Doctor	3
	elderly home	3
Total Score for Site		121

This figure would then be compared against other requests for traffic calming schemes under consideration. This example is likely to be a priority for the Council.

Traffic Calming Legislation and Advice

The main powers by which Highway authorities introduce traffic calming have been provided by the following legislation:-

1. The Highways Act 1980 (as amended) – is the primary legislation containing most of the provisions relating to road humps and traffic calming. This Act also provides for the construction of pinch-points, kerb build outs and pedestrian refuges.
2. The Highways (Road Humps) Regulations 1999 (SI 1999/1025)– these Regulations provide details of the road humps (including speed cushions) which can be constructed on roads with a speed limit of 30mph or less. The Secretary of State' authorisation is not required provided the humps are between 25 and 100mm high, at least 900mm in long in the direction of travel, and have no vertical face greater than 6mm. Generally, however, the Regulations give considerable flexibility in the design and placement of road humps. In respect of consultation, under the Highways Act 1980, the highway authority has a statutory duty to consult the police and also post notices in the street and in local newspapers advertising the scheme. Further, the Highways (Road Humps) Regulations 1999 require consultation with the fire service, ambulance service and organisations representing those who use the road. Such organisations could be residents associations, bus companies, and haulage organisations. National guidance (LTN 1/07 below) recommends that 'dialogue should be opened with all interested parties (including pedestrians, disabled people, cyclists' groups and where appropriate, equestrians).
3. The Highways (Traffic Calming) Regulations 1999 (SI 1999/1026) defines the different types of measures which are to be classed as traffic calming measures for the purposes of the Highways Act 1980. It also details the specifications for rumble devices and over-run areas. In respect of consultation, the Regulations require the highway authority to consult the police and such persons or organisations representing persons who use the highway or who are otherwise likely to be affected by the traffic calming measures.
4. Department for Transport, DfT, Local Transport Note 1/07, March 2007, Traffic Calming. This Local Transport Note (LTN) brings together in one comprehensive document a summary of the research commissioned by the Department for Transport (DfT, formerly the DTLR, DETR and DoT), together with research from external sources, to provide advice on the use of traffic calming measures. It covers relevant legislation and the design, effectiveness and installation (including signing and lighting) of measures. This LTN does not aim to cover issues such as driver education or speed limit enforcement