

Traffic Advisory Leaflet 7/93
August 1993



Traffic Calming Regulations

Introduction

Traffic calming can help drivers to make their speeds appropriate to local conditions, through measures which are self-enforcing. This leaflet provides an explanation of the Highways (Traffic Calming) Regulations 1993, and offers guidance on the use of measures prescribed in the regulations. More comprehensive guidance on traffic calming devices will be the subject of further leaflets.

Road humps, including speed cushions etc., have their own specific legislation. Therefore only brief reference is made to these features. The references at the end of this leaflet provide information on where current guidance on road humps can be found.

Traffic calming schemes may have both environmental and safety objectives. These are best achieved by a multi-disciplinary approach. This ensures that the expertise of road safety officers, landscape architects, planners, conservation officers, and other professionals can be brought into play at an early stage in scheme design. Public utilities should also be involved, as the location of their apparatus can influence the design and cost of a scheme.

Traffic Calming Act

The Traffic Calming Act 1992 amended the Highways Act 1980 by the addition of Sections 90G, 90H and 90I which allow works to be carried out "for the purposes and promoting safety of preserving or improving the environment....." The Act made the first specific references in legislation to traffic calming. However, it does not preclude the use of other powers in the Highways Act 1980 and elsewhere under which traffic calming features can be provided. The relevant powers in the Highways Act 1980 include:-

- Section 64 - roundabouts;
- Section 68 - pedestrian refuges;
- Section 75 - variations in the relative width of carriageways and footways;
- Section 77 - alterations in the level of a highway;
- Sections 90A-F - road humps

In addition the 1992 Act does not prevent traffic signs prescribed under the Traffic Signs Regulations and General Directions being used for traffic calming.

The Highways (Traffic Calming) Regulations 1993

These regulations came into effect in August 1993. They have been made to provide local highway authorities with the necessary powers to construct particular measures for traffic calming purposes which are not otherwise clearly authorised.

Traffic calming regulations features

The regulations prescribe features which can be used alone or in combination with others, either prescribed by these same regulations or which can be constructed under powers provided under other legislation, or which have been specially authorised.

Pinch point



This is formed by the construction of buildings opposite one another. It can be used in combination with a gateway, and is very effective as a speed control feature when combined with a road hump. Narrowings formed to assist pedestrians to cross are constructed under the powers provided by section 75 of the Highways Act 1980, rather than these regulations.

Gateways



These can be provided to indicate to drivers where the road changes in character, for example at the start of a traffic calming scheme or at the entry to a speed limit zone. They may be used in combination with other measures, such as

pinch points, rumble strips, traffic signs (including road marking) etc. They are not necessarily in themselves speed reducing features, though there is some evidence that they can be, and research is being carried out to investigate this. They may consist of structures at the side of the road and also above it. A gateway must not physically deny the passage of any vehicle unless other legal provisions have been made to prohibit such vehicles. The regulations enable gateways to be constructed within cycle tracks. This is intended to cover the situation where it may be necessary to construct the gateway in part of a cycle track. Local highway authorities will be aware of the need to avoid any structure presenting a danger to cyclists or pedestrians.

Rumble Device

This includes such features as rumble strips, rumble areas, jiggle bars etc. For general use on public roads, devices must not exceed 15mm in height and no vertical face must be greater than 6mm. In the case that authorities wish to use devices which exceed these dimensions they must seek special authorisation. However the reason for stipulating these dimensions in the regulations is the concern that rumble devices should not be dangerous to vulnerable road users. For the safety of cyclists a gap of not less than 750mm should be left between the rumble device and the adjacent kerb or verge to allow them free passage. Some schemes only extend rumble devices over one half of the carriageway. It has been known for drivers to avoid these rumble devices by driving over the half of the carriageway provided for opposing traffic. For this reason it is generally recommended that rumble devices are placed across the full width of a two way road. The speed control qualities of rumble devices over a long period are not entirely proven. Further information is being collected on this aspect as well as various design features. It appears that they can be used as an effective alerting device, and there are claims of accident reductions occurring at some locations. A major drawback of rumble devices is the noise they can generate, and for this reason they are not

recommended for use in urban areas. Some authorities will not permit their use within 200m of any residential property, but anecdotal evidence suggests that the noise generated can travel much further, depending on local circumstances. It is recommended that rumble devices are constructed in a contrasting colour from the road surface, though not white in order to avoid any confusion with road markings.

Overrun Areas

These are areas which are usually constructed to form a raised surface but may also be areas in a contrasting colour. They may be sited adjacent to the kerb, either at the near side of the road or at an island. The purpose is to create an appearance of a narrower carriageway in order to inhibit speeds of vehicles, but at the same time allow drivers of larger vehicles to negotiate the feature. As cyclists and motorcyclists may at times be forced to ride across these areas, the regulations stipulate that no vertical face should exceed 6mm. Higher vertical faces could cause them to lose their balance. Materials which incorporate radius or irregular upstands will generally not be affected by this requirement. However, the slope angle of 15 degrees should not be exceeded as this again could cause danger to certain road users. Overrun areas should not be positioned where pedestrians are likely to cross the road. They may be tempted to stand on the overrun area, where they could be at risk from large vehicles negotiating the device. Alternatively, if an irregular surface is used, pedestrians may be influenced to cross at a more dangerous location. In siting overrun areas consideration therefore needs to be given to their relationship to the places where people are likely to cross.

Islands

Islands can be particularly effective in reducing the speeds at which people drive, but do depend on the degree or at the entry of deflection that can be incorporated into the design. "False roundabouts" where there are no side road connections are a good example of the use of islands for this purpose. In such devices overrun areas

can also be incorporated to encourage greater deflection of smaller vehicles, but at the same time allow for the passage of larger vehicles. Islands may also be used in combination with gateway features at the start of a traffic calming scheme. It should be noted however that islands under the provisions of these regulations



are not for pedestrians. Pedestrian refuges are provided under Section 68 of the Highways Act 1980, and although these may be used to reduce vehicle speeds, authorities should be aware of the difference. It is not a requirement for an island to be centrally positioned. Offset islands may be used to protect a cycle lane for instance.

Chicane



This is a narrowing formed by locating build outs alternately on each side of the carriageway. Each chicane will consist of two or more build outs. Close spacing of build outs forming the chicane, say 10m to 15m apart, can be extremely effective in constraining drivers' speeds. However, at this spacing buses and other large vehicles find it difficult to manoeuvre through the chicane. Wider spaced chicanes rely more on opposing traffic to provide effective

speed control. Research is being undertaken to ascertain the speed reducing qualities of combining wider spaced chicanes with specially authorised speed cushions. Chicanes are not normally appropriate places to encourage pedestrians to cross, as the attention of drivers may be concentrated more on negotiating the device. If pedestrians are likely to cross at chicanes, the design should ensure they can be seen clearly and that they can cross the road safely.

Build out



A build out, as the name implies, describes a feature extending into the carriageway, on one side of the road only, by narrowing the road. Evidence to date suggests that for a narrowing to be an effective speed reducing and control feature there needs to be an opposing traffic flow sufficient to have the effect of inhibiting the speed at which people choose to travel. However, when combined with a feature such as a road hump very effective speed control is obtained. A build out may be directly connected to the footway or verge, or to simplify drainage arrangements a channel may be formed between the build out and the footway or verge. It may also be constructed to allow a cycle track to be formed between the build out and the verge or footway, so that cyclists do not have to pass through the narrowing for motor vehicles. Where a cycle track is provided, it is generally appropriate to discourage pedestrians from using the build outs to cross the carriageway. Similar facilities to improve pedestrian crossing opportunities, or for bus stops, might also be constructed under the powers of Section 75 of the Highways Act 1980. A

series of build outs along one side of a road can be used to provide sheltered parking places. Build outs should generally be constructed of material which is fixed or otherwise connected to the road surface. When considering the use of constructions which rely on weight alone, highway authorities should satisfy themselves that there is sufficient inbuilt stability to ensure that the features cannot be displaced in a hazardous manner if struck by a vehicle.

Consultation

Seeking the views of those affected by traffic calming schemes is vital in determining the success or failure of any scheme. The regulations require that the police be informed of traffic calming proposals; they have day to day responsibilities for traffic control, and it is essential that they have the opportunity to



comment on matters which might affect this. The regulations make it clear that consultation with other organisations is a matter for highway authorities to determine. Some minor work, for example, may require little or no consultation. However, where any traffic calming works will materially affect the movement of traffic, be it pedestrian or vehicular, it is strongly recommended that consultation with road users is carried out.

Whom to consult

Wherever consultation is thought necessary, fire and ambulance services should always be consulted. Where a scheme forms part of a bus route, bus operators should be notified. It may be appropriate to keep bus operators informed about all calming schemes, even



if the scheme is not part of a bus route. Bus operators sometimes have to carry out route diversions and therefore need to be aware of the status of roads adjacent to bus routes. Frontagers should always be kept informed of schemes, whether or not Individual properties are directly affected. Residents are understandably concerned that ready access to their property is maintained, and that on street parking is not dramatically reduced. At times it may be necessary to ensure that special interest groups, such as school children, the elderly, cyclists, blind people, etc are made aware of proposals, and are able to comment on them. Local authorities will know of local organisations or representatives who can provide comments on behalf of these road users. Often a compromise between the desires of individuals and those of the community at large will be required. Publicity in the form of leaflets, public meetings and public exhibitions can often ensure that individuals who might not have been informed directly have the opportunity to comment. Such arrangements can help to ensure that misconceptions about the purpose of the proposals do not arise.



Results from questionnaire surveys of local residents can help in placing in context the views of minority groups. The views of drivers passing through an area may be helpful in some instances. The extent to which consultation with any or all of these groups is considered appropriate will be a matter for the local highway authority to determine.

Landscaping

Works constructed in accordance with the regulations may be paved, lit and landscaped. Not all schemes will necessarily lend themselves to planting. Where appropriate the provision of trees and shrubs can add enormously to the aesthetic value and acceptability of a scheme to the public. Planting must not obscure pedestrians, particularly children,



when crossing or playing in the road. Whether or not a particular feature will require additional lighting is a matter for the local highway authority to determine, bearing in mind the conspicuity requirements of these and other regulations.

Access

Many traffic calming schemes are designed to inhibit vehicular access to a road or area. The intention is usually to discourage through vehicles. Entry treatments are often used to create this effect. However, the regulations make it clear that traffic calming measures cannot be used by themselves as a means of prohibiting access to certain vehicle types. Traffic Regulation Orders are required if the intention is to prohibit vehicular access;

these can then be complemented on the street by the use of calming.



Signing

Within a 20mph Zone the regulations allow roads highway authorities the option of not signing the various prescribed measures. This is similar to the relaxation in the Road Humps (Highways) Regulations 1990. Signing should be provided where a local highway authority considers it appropriate to ensure that the measure operates safely. For areas when are not in 20mph zones, highway authorities should consider whether road users have a clear indication of the correct paths to follow, and if not, to



provide suitable signing. If authorities wish to use signs which are not prescribed in the Traffic Signs Regulations and General Directions, they should seek authorisation from the appropriate Department. Authorities may consider signing to be unnecessary where the measure will be conspicuous.

Monitoring

The regulations do not require monitoring to be carried out. However, local authorities will often wish to know how a

particular scheme has performed, for example to ascertain whether the objectives of the scheme have been achieved. Such objectives may include accident reduction, lower vehicle speeds,



and vehicle diversion. Local highway authorities are therefore advised to consider the need for before and after studies at an early stage to ensure that relevant data can be obtained.

Objectives

The regulations will assist local authorities to achieve a wider range of objectives in a number of their policies. For example, objectives relating to conservation in historic town centres, improvement of safety and environmental conditions in residential areas, and the improvement of distributor roads which are also shopping centres. In meeting these objectives authorities will need to consider carefully



the range of measures to be used in order to match them to the activities in different streets. Schemes which encourage the smooth flow of traffic, at speeds in keeping with the character of the area, and with adequate provision for vulnerable road

users, are most likely to achieve these objectives.

Special Authorisation

The traffic calming regulations are intended to provide for most features not covered by other legislation. Knowledge of traffic calming features is still being gained. The Department does not wish to inhibit the use of innovative designs. All highway authorities have a duty of care to ensure as far as reasonably possible that the designs are safe. Procedures exist which enable the Department to be able to specially authorise features which do not conform to measures prescribed by existing regulations, both for vertical and horizontal deflections. The Department encourages local highway authorities to seek special authorisation of innovative measures where appropriate. Traffic Advisory Leaflet 3/93 provides further information on this.

Contacts

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References

- Traffic Calming Act 1992. HMSO, ISBN 0-10-543092-7 £1.45
- Highways (Traffic Calming) Regulations 1993 (SI 1993 1849) HMSO. £1.10
- Highways Act 1980. HMSO, ISBN 0 10 546680 8 £16.30
- Traffic Signs Regulations and General Directions 1981 as amended, HMSO
- Highways (Road Humps) Regulations 1990 (SI 1990 No 703, and SI 1990 No 1500) HMSO £1.70 and £0.55
- Traffic Advisory Leaflet 1/87 - Measures to Control Traffic for the Benefit of Residents, Pedestrians and Cyclists
- Traffic Advisory Leaflet 2/90 - Speed Control Humps
- Traffic Advisory Leaflet 3/93 - Traffic Calming Special Authorisations
- DOT Circular Roads 2/93, The Highways (Traffic Calming) Regulations 1993

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