

5 Traffic calming

Increasing traffic volumes are putting pressure on many roads and streets throughout the country, many of which were never designed for such use. Historic areas in particular are more sensitive to high vehicle speeds and volumes and need careful consideration of ways of calming the traffic. Many standard traffic calming solutions have had an adverse visual effect on the street environment and damaged the character of the street and the built environment. Pedestrian accessibility is essential to the success of our towns and villages, and the considered use of traffic calming techniques can enable designers to address this by slowing down traffic and improving the quality of life for pedestrians using the streets.

Traffic calming techniques are used to reduce the speed of vehicles and re-allocate road space for the benefit of pedestrians and can include:

- Vertical features including road humps and speed cushions
- Horizontal features such as chicanes
- Road narrowing, either localised or over a length of road
- 20 mph zones
- Bespoke traffic management measures
- On street car parking measures

These can enable speeds to be reduced sufficiently, to allow streets to be redesigned to a lower speed, allowing reduced road widths and smaller radii on corners to be achieved. Having reduced the speed of traffic, driver expectations are then reduced and the conventional hierarchy of drivers and pedestrians can be changed or even reversed. At lower speeds it is possible to use Shared Space and Home Zone design principles.

General Advice

1 Road humps are viewed both positively and negatively, depending on the sensitivity and context so should be used with careful consideration.¹

2 Traffic calming measures intended to reduce speed should be self-enforcing in order for them to be successful.

3 Traffic calming methods should be appropriate and in context, taking into account type of street, speed of vehicles, vehicular/pedestrian movement and accident levels. Interpretation of accident results should include reasons and not just levels.

4 Vertical deflections such as road humps and speed cushions can be visually unattractive and devalue sensitive locations. Design approaches and exit ramps to avoid additional noise and vibration by vehicles travelling over them.

5 A combination of different features is likely to be most effective, such as a reduced road width combined with kerblines aligned with reference to building lines or features. Be careful to use matching materials, colour and texture. It is important that the finished street challenges a driver's normal perception of the street environment, causing them to slow down in response.

6 It is important that the design results in a scheme that physically blends, using materials and styles rather than appearing discordant with bolt-on additions. Align and select kerbs to join and match the original kerblines, not stand remote from it. Avoid placing new chicanes, gateway features, etc. immediately in front of important historic buildings unless specifically designed to enhance the public space there.

7 Involving different disciplines when designing the street will lead to a much improved environment. Such disciplines could include; highway engineers, transport planners, urban designers, landscape architects, architects.

¹ Note that at the time of publication, the Department for Transport is in the process of preparing guidance on Reducing the Impact of Traffic Management Measures on the Streetscene.

8 Consult stakeholders and the public on options. Consultation is legally required for humps and Traffic Regulation Orders for 20mph zones.

9 For additional information and advice regarding traffic calming refer to Section 5 Traffic Management, of all English Heritage's *Streets for All* regional guidance.

Procedures

- 1 Survey existing materials, special features and architectural styles that provide local distinctiveness. Check whether a Conservation Area or listed buildings exist.
- 2 Undertake a full site intelligent behaviour based investigation into existing site conditions, including the collection of data on traffic movement covering all modes. Accident data should also be collected and interpreted so that an accurate analysis can be undertaken into the level of calming which is required and can be achieved.
- 3 Gather a team of professionals who can develop proposals that represent all the users of the street, including servicing and future projected use aspirations.
- 4 Ensure all materials used are sensitive to their location and can integrate into the surrounding streetscape.
- 5 Undertake consultation with residents, local stakeholders, Local Planning Authority design and conservation officers, English Heritage (if in a conservation area) and the highway authority.

Relevant Documents and Legislation

- Psychological Traffic Calming, *TRL*, 2005
- Highways (Road Humps) Regulations 1999
- Highways (Traffic Calming) Regulations 1999
- Traffic Calming Act 1992
- Greater London Authority Act 1999, s.268
- 06/96, Traffic Calming – Special Authorisations, *DfT Traffic Advisory Leaflet*²
- 2/90, Speed Control Humps, *DfT Traffic Advisory Leaflet*³
- 7/91, 20mph Speed Limit Zones, *DfT Traffic Advisory Leaflet*⁴
- 2/92, The Carfax, Horsham 20mph Speed Limit Zone, *DfT Traffic Advisory Leaflet*⁵
- 2/93, 20mph Speed Limit Zone Signs, *DfT Traffic Advisory Leaflet*⁶
- Traffic Calming Techniques, *CSS and IHT publication with case studies*, 2005
- Traffic Measures in Historic Towns, *Civic Trust/ English Historic Towns Forum*, 1993
- All regional *Streets for All* guidance documents produced by English Heritage.
- LTN 1/07, *Traffic Calming*, DfT, TSO 2007
- LTN 1/08, *Traffic Management and Streetscape*, DfT, TSO, 2008
- Manual for Historic Streets *English Historic Towns Forum*, May 2008

² Note that this guidance should be used with care as it pre-dates the current 2002 TSRGD.

³ As above

⁴ As above

⁵ As above

⁶ As above

Supporting Case Study

Petersfield, Hampshire

Petersfield provides examples of traffic calming solutions to remedy high speed traffic levels and develop a pedestrian focussed environment. The improvements were implemented over a 10 year period and the first element was included in the Department of Transport Bypass Demonstration Project in 1992 and was one of six towns nationwide. Subsequent improvement schemes to Dragon Street occurred in 1995, College Street in 1996 and the Town centre in 2003.

Traffic calming was recognised as one of the necessary tools to restore the “sense of place” to the town which has a special historic character. This approach was undertaken to provide a reduced dominance of traffic on the former trunk road in Petersfield and ensure that the benefits of the by-pass were maximised to provide a safe and pleasant environment for residents, shoppers and visitors and preserve and enhance local business viability.

The overall scheme has created a hierarchy of roads with Dragon Street still acting as the main street and the town centre becoming a 20mph zone and Restricted Zone where yellow lines have been removed. All improvements used subtle traffic calming with different features to achieve their goal. These included techniques such as narrower roads with ‘courtesy crossings’, pinch points, gateways, some shallow road humps and cushions, surface treatments, junction modifications, planting, sheltered parking, entry treatments, changes to junction priority and limited use of road markings and signs, even at junctions and crossing points.

It was important that the traffic calming interventions were not implemented in isolation and that they worked as an integral part of a scheme to enhance the town. The following measures were also carried out to enhance and support the project in order to ensure its success;

- Increased bus movement and construction of new bus stands and shelters
- Reduction of road width on main shopping street
- A small increase in provision of on-street parking in allocated bays – avoiding yellow lines
- Use of complementary local materials
- Use of appropriate lighting
- Use of character defining street furniture.



01 Petersfield Town Square is now pedestrian friendly due to the reduction in traffic flow combined with public realm improvements

02 Removal of white lines along with visual narrowing helped to reduce traffic speeds

03 Side road entry treatments further emphasise the pedestrian friendly environment

04 Raised table acts as a traffic calming measure and improves cross-street pedestrian accessibility

01



01 An example of a well integrated traffic calming feature

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