A summary of the National Speed Limit Guidance
(by Transport for Buckinghamshire April 2013)

Introduction

On 18th January 2013 the Department for Transport, (DfT), published new national guidance to local councils to help them implement more consistent speed limits on local roads. It incorporates recent changes that create more flexibility for authorities to implement 20mph limits and zones.

This guidance is set out in DfT Circular 01/2013 'Setting local Speed Limits' which can be seen in full on the DfT's website at:-
https://www.gov.uk/government/publications/setting-local-speed-limits
Extracts from /a summary of this document is given below.

The previous guidance in 'Circular 01/2006', also called 'Setting local speed limits' has now been withdrawn by the Department for Transport.

The DfT also published a speed limit appraisal tool. This is a web-based tool which can be seen at:- https://www.gov.uk/government/publications/speed-limit-appraisal-tool
It is designed to help councils to assess the full costs and benefits of any proposed local speed limit schemes and make robust, evidence-based decisions about which limits they put in place.. As well as casualties and other traffic effects, it takes into account other factors such as quality of life.
(Please contact TfB on 0845 230 2882 if you do not have internet access and would like a paper copy of either of these documents)

Summary of DfT Circular 01/2013: Setting local speed limits

(The full document has over 40 pages.)

SECTION 1. INTRODUCTION.

Speed limits should be evidence-led and self-explaining and seek to **reinforce people's assessment of what is a safe speed to travel**. They should encourage self-compliance. Speed limits should be seen by drivers as the maximum rather than a target speed.

Traffic authorities set local speed limits in situations where local needs and conditions suggest a speed limit which is lower than the national speed limit.

This **guidance is to be used for setting all local speed limits on single and dual carriageway roads in both urban and rural areas.**

This guidance should also be used as the basis for assessments of local speed limits, for developing route management strategies and for developing the speed management strategies which can be included in Local Transport Plans.

Traffic authorities are asked to keep their speed limits under review with changing circumstances, and to **consider the introduction of more 20 mph limits and zones, over time, in urban areas and built-up village streets that are primarily residential,** to ensure greater safety for pedestrians and cyclists, using the criteria in Section 6.

The overall speed limit framework, including the setting of **national limits for different road types,** and which exceptions to these general limits can be applied, is the responsibility of the government. The three national speed limits are:

- the **30 mph** speed limit on **roads with street lighting** (sometimes referred to as Restricted Roads)
- the national speed limit of **60 mph on single carriageway roads**
- the national speed limit of **70 mph on dual carriageways and motorways**.

These national limits are not, however, appropriate for all roads. The speed limit regime **enables traffic authorities to set local speed limits** in situations where local needs and conditions suggest a speed limit which is different from the respective national speed limit.

SECTION 2. BACKGROUND AND OBJECTIVES OF THE CIRCULAR.

Traffic authorities continue to have the flexibility to set local speed limits that are appropriate for the individual road, reflecting local needs and taking account of all local considerations.

Local speed limits should not be set in isolation, but as part of a package with other measures to manage vehicle speeds and improve road safety such as engineering, education, driver information, training and publicity.

The **objectives of the guidance are:**

- to provide up-to-date and consistent advice to traffic authorities
- to improve clarity and therefore greater consistency of approach when setting speed limits across the country
- to enable the setting of more appropriate local speed limits, including lower and higher limits where conditions dictate
- to achieve local speed limits that better reflect the needs of all road users , not just motorised vehicles
- to ensure improved quality of life for local communities and a better balance between road safety, accessibility and environmental objectives, especially in rural communities

- improved recognition and understanding by road users of the risks involved on different types of road, the speed limits that apply, and the reasons why;

- improved respect for speed limits, and in turn improved compliance; and

- continued reductions in the number of road traffic collisions, injuries and deaths in which excessive or inappropriate speed is a contributory factor.

Unless a speed limit is set with the support from the local community, the police, other local services, with supporting education,with consideration of whether engineering measures are necessary to reduce speeds, or if it is set unrealistically low for the particular road function and condition, it may be ineffective and drivers may not comply with the speed limit.

SECTION 3. THE UNDERLYING PRINCIPLES OF LOCAL SPEED LIMITS.

The Highways Agency is responsible for determining speed limits on the trunk road network. Local traffic authorities, (eg Buckinghamshire County Council), are responsible for determining speed limits on the local road network.

It is **important that traffic authorities and police forces work closely together** in determining, or considering, any changes to speed limits.

The full range of speed management measures should always be considered before a new speed limit is introduced.

Underlying principles

- The underlying aim should be to achieve a 'safe' distribution of speeds This implies a **mean speed appropriate to the road environment and all vehicles moving at speeds below or at the posted speed limit**.

- A consistent message between speed limit and what the road looks like- changes in speed limit should be reflective of changes in the road layout and characteristics.

The **key factors that should be taken into account in any decisions on local speed limits are:**

- history of collisions (severity/types/causes/frequency);

- road geometry and engineering (width/sightlines/bends/junctions/accesses);

- road function (strategic, through traffic, local access etc);

- composition of road users (including existing and potential levels of vulnerable road users);

- existing traffic speeds;

- and road environment (incl. road-side development & possible impacts on residents such as severance, noise, air quality).

While these factors need to be considered for all road types, they may be **weighted differently in urban or rural areas.** The impact on community and environmental outcomes should also be considered.

Traffic authorities will wish **to <u>be satisfied that the expected benefits of a change in speed limit will exceed the costs.</u> The speed limit assessment toolkit will help assess this. An assessment should include :-**

- collision and casualty savings
- conditions/facilities for vulnerable road users
- impacts on walking/cycling/other modal shift
- congestion and journey time reliability
- environmental, community and quality of life impact ,such as emissions, severance of local communities, visual impact, noise, vibration.
- costs (physical measures/signing/maintenance/enforcement)

On rural roads there is often a difference of opinion as to what constitutes a reasonable balance between the risk of a collision/journey efficiency & environmental impact. An acceptable balance should be sought. (34)

Drivers/riders of motor vehicles do not have the same perception of the hazards of speed as do people on foot, bicycles, or horseback. (32)

The minimum length of a speed limit should generally be not less than 600 metres to **avoid too many changes of speed limit along the route**. This can be reduced to 400 metres for lower speed limits, or even 300 metres on roads with a purely local access function, or where a variable 20 mph limit is introduced. The final choice of appropriate speed limit for individual sections might need to be adjusted to provide reasonable consistency over the route as a whole.

Short lengths of transitional speed limit (eg 40/50mph length between National speed limit and a 30mph village speed limit) should be restricted to sections of road where immediate speed reduction would cause risks or is likely to beless effective.

Speed limits should not be used to attempt to solve the problem of isolated hazards, such as a single road junction or reduced forward visibility, e.g. at a bend.
New lower local speed limits must meet the legislative process and be **signed correctly & consistently** to:-

- be legally enforceable

- to ensure compliance

SECTION 4. THE LEGISLATIVE FRAMEWORK.

All speed limits, other than those on restricted roads, should be made by order under Section 84 of the Road Traffic Regulation Act 1984. The full consultation procedure, set out in legislation, must be followed,

Any speed limits below 30 mph, other than 20 mph limits or 20 mph zones, require individual consent from the Secretary of State.

Unless an order has been made and the road is signed to the contrary, a 30 mph speed limit applies where there is a system of street lighting furnished by means of lamps (three or more throwing light on the carriageway) placed not more than 200 yards (183 metres) apart.

30mph speed limit repeater signs cannot be placed along a road on which there is a system of street lighting as above .

Traffic authorities have a duty to erect and maintain prescribed speed limit signs on their roads in accordance with the Traffic Signs Regulations and General Directions 2002 (TSRGD 2002).

Speed limit signs which do not comply with the Regulations/not been authorised by the Secretary of State are not lawfully placed. In such cases, no offence is committed by a person exceeding the signed speed limit and any prosecutions are likely to fail accordingly.

Chapter 3 of the Traffic signs Manual (DfT 2008) provides guidance to traffic authorities on best practice when signing speed limits, to complement the mandatory requirements set out in the TSR&GD.

If traffic authorities wish to deviate from what is prescribed in signing regulations, they must first gain the Secretary of State's authorisation.

Traffic authorities are not permitted to erect different speed limit signs relating to different classes of vehicle.

Vehicle-activated signs must not be used as an alternative to standard static signing, but as an additional measure to warn drivers of a potential hazard or to remind them of the speed limit in force.

SECTION 5. THE SPEED LIMIT APPRAISAL TOOL.

https://www.gov.uk/government/publications/speed-limit-appraisal-tool

The tool has been designed to:-

- forecast mean and 85th percentile speeds for speed limit changes
- forecast changes to: journey times separately for business and personal users; vehicle operating costs including fuel; accidents by severity; CO2 emissions; and NOX emissions; and

- to appraise changes in speed limits to 20mph, 30mph, 40mph, 50mph, 60mph and, on dual carriageways, 70mph.

In addition to enabling a local highway authority to decide whether or not to introduce a new speed limit scheme, the tool introduces transparency in the decision making process. It also provides a facility that encourages local highway authorities to adopt a more consistent appraisal process, whilst still allowing the flexibility for the highway authority to take into account local road conditions and the surrounding environment.

The tool deals with those aspects of speed limit changes that can be quantified, such as accidents, journey time savings and CO2 emissions, and those that presently cannot be quantified because of a lack of evidence, such as journey time reliability, model shift and impacts on public anxiety.

SECTION 6. URBAN SPEED LIMITS.

Speed limits in urban areas affect everyone, not only as motorists, but as pedestrians, cyclists and residents. As well as influencing safety they can influence quality of life, the environment and the local economy.

Traffic authorities are encouraged to adopt the Institution of Highways and Transportation's urban safety management guidelines (see IHT, 2003), in which road hierarchies are adopted that reflect a road's function and the mix of traffic that it carries.

The majority of road casualties occur on urban roads, including 87% of all pedestrian and 83% of all pedal cyclists casualties.(DfT 2011)

The risk of a pedestrian dying from a collision with a car increases slowly up to an impact speed of around 30mph, but at speeds above 30mph the risk of death increases rapidly (Rosen & Sander 2009). Research in London showed that the largest casualty reductions associated with 20mph zones were children killed and seriously injured and car occupants (Grundy et al 2008)

20 mph

Traffic authorities can, over time, introduce **20mph speed limits or zones** on:

- **Major streets** where there are – or could be - **significant numbers of journeys on foot, and/or where pedal cycle** movements are an important consideration, and this outweighs the disadvantage of longer journey times for motorised traffic.

This is in addition to

- **residential streets in cities, towns and villages**, particularly where the streets are being used by people on foot and on bicycles, there is community support and the characteristics of the street are suitable.

Successful 20mph limits/zones are generally self-enforcing. There should be no expectation on the police to provide enforcement beyond routine activity. The exi8sting conditions of the and measures such as traffic calming or signing, publicity and information, lead to an appropriate mean speed .

20 mph Zones :-

20 mph zones require traffic calming measures (e.g. speed humps, chicanes) or repeater speed limit signing and/or roundel road markings at regular intervals, so that no point within a zone is more than 50 m from such a feature. The beginning and end of a zone is indicated by a terminal sign.zones usually cover several roads.

- have generally been shown to reduce mean traffic speed by more than a signed only speed limit.
- can be **very effective** at reducing collisions and injuries.
- **are predominantly used in urban areas**- town centres and residential areas, and in the vicinity of schools. They should also be used around shops, markets, playgrounds and other areas with high pedestrian or cyclist traffic,
- they should **not include roads where motor vehicle movement is the primary function**.
- It is generally recommended that they are **imposed over an area** consisting of several roads.
- Must have 20mph zone entry and exit signs.
- **No point within a 20 mph zone must be further than 50 metres from a traffic calming feature** (unless in a cul-de-sac less than 80 metres long).In addition to physical features, (where speeds are already near to the limit) , local authorities can also place any of the following:-
    - A repeater speed limit sign
    - A speed roundel road marking
    - A combination of the above

  but at least one traffic calming feature must be placed in a zone and the features/signing must not be placed at intervals greater than 100 metres.
  Suitable traffic calming features are defined in Direction 16(2) of TSR&GD and include
    - Road humps (incl speed tables /cushions)
    - Road narrowing (incl. chicanes, pinch-points, over-run areas)
    - Gateways
    - Road markings
    - Rumble devices
- Where a 20mph zone leads into a 20mph limit, a standard 20mph terminal sign must be used.

20 mph limits

20 mph limits are signed with terminal signs and at least one repeater sign, although sufficient repeater signs should be placed to inform road users of the speed limit in place. 20mph limits do not require traffic calming. 20 mph limits are similar to other local speed limits and normally apply to individual or small numbers of roads but are increasingly being applied to larger

areas. Every English authority has a traffic sign authorisation which permits them to place a **20mph speed roundel road marking as a repeater sign, without the requirement for an upright sign**, to reduce unnecessary signing.

- Research of signed-only 20mph limits shows that they generally lead to only small reductions in speeds. They are most appropriate for roads where speeds are already low .

- If the mean speed is already at or below 24mph, a 20mph signed only limit is likely to achieve compliance with 20mph.

- 20mph limits without traffic calming reduce mean speeds by about 1mph on average.

- In Portsmouth, where large-scale 20mph limits were installed, a minority of roads previously had average speeds of 25mph or higher. The reductions in average speed tended to be greater , but insufficient to make speeds generally compliant with the new 20mph limits.

- The implementation of **20 mph limits over a larger number of roads**, which the previous Speed Limit Circular (01/2006) advised against, should be considered **where mean speeds at or below 24 mph are already achieved** over a number of roads. Other measures can be used within 20mph limits, such as traffic calming or vehicle activated signs.

Variable 20mph limits

Traffic authorities have powers to introduce 20 mph speed limits that apply only at certain times of day. These variable limits may be particularly relevant where for example a school is located on a road that is not suitable for a full-time 20 mph zone or limit, such as a major through road. Variable message signs can be used for this, one on each approach, subject to DfT authorisation.

The Secretary of State has already provided a special authorisation for **every English traffic authority to place an advisory part-time 20mph limit sign, with flashing school warning lights**. This can be a more cost-effective solution, where appropriate, and reduces the requirement for signing.

30mph This is the standard speed limit in urban areas

This is the national speed limit on street-lit roads. This limit is a balance between mobility and safety factors.

Roads suitable for a **40 mph limit** are generally higher quality suburban roads or those on the outskirts of urban areas where there is little development. The roads should have god width & layout, parkings and waiting restrictions in operation and buildings set back from the road. Adequate footways and crossing facilities should be in place. Usually, the movement of motor vehicles is the primary function.

In exceptional circumstances, **50 mph limits** can be implemented on special roads and dual carriageways, ring roads or bypasses where the road environment and characteristics allow this speed to be achieved safely. There will be little or no roadside development and 50mph can be achieved safely.

TABLE 1 Speed limits in urban areas – summary

(copied from DfT Circular 01/2013)

Speed limit (mph)	Where limit should apply
20 **(including 20 mph zone)**	In streets that are primarily residential and in other town or city streets where pedestrian and cyclist movements are high, such as around schools, shops, markets, playgrounds and other areas, where motor vehicle movement is not the primary function.
30	In other built-up areas (where motor vehicle movement is deemed more important), with development on both sides of the road.
40	On higher quality suburban roads or those on the outskirts of urban areas where there is little development, with few cyclists, pedestrians or equestrians. On roads with good width and layout, parking and waiting restrictions in operation, and buildings set back from the road. On roads that, wherever possible, cater for the needs of non-motorised users through segregation of road space, and have adequate footways and crossing places.
50	On dual carriageway ring or radial routes or bypasses that have become partially built up, with little or no roadside development.

Section 7. Rural Speed Management.

- The **national speed limit** on the rural network is
  - 60 mph on single carriageways and
  - 70mph on dual carriageway roads and motorways.

- On many of these roads, the majority of drivers are travelling below – sometimes significantly below – the speed limit), especially so on the C and unclassified roads (with characteristics such as narrow width, bends ,junctions and accesses)
- Rural dual carriageways with segregated junctions and facilities for vulnerable road users would generally be suitable for 70 mph limits. However, a lower limit may be appropriate if, for example, a collision history indicates that this cannot be achieved safely.
- In Britain in 2011, 66% of road deaths, (& 82% of car occupant deaths), occurred on rural roads , although they only account for around 42% of the distance travelled. 51% of road deaths occurred on 60mph rural single carriageways.
- Research indicates that the risk of a driver dying as a result of a head –on collision involving two cars travelling at 60mph is around 90% ,but that this drops rapidly with lower speed, so that it is around 50% at 48mph.

- Inappropriate speed, at below the legal limit, but above the level appropriate for the road at the time,(eg weather/ presence of vulnerable road users), is a particular problem for rural roads. 'Exceeding the speed limit' or 'travelling too fast for the conditions' are reported as contributory factors in 16% of collision on rural roads. Inappropriate speed is recorded as a contributory factor in 20% of crashes on minor rural roads with a 60mph limit. Speed limit changes are unlikely to fully address this problem. An understanding of the particular types of crashes taking place and their causes will help traffic authorities to choose effective solutions.

- Typical collision rates /proportions of collision types for different types of road are shown in 'Accident Analysis on Rural Roads: A Technical Guide (TRL 2004). This helps to assess where there are above average collision rates what measures could deal with them.

- A balance is required between safety objectives for all road users and mobility objectives to ensure efficient travel.

- Use of average –speed cameras may be appropriate on some stretches of road, but the effectiveness of these has not been fully evaluated.

- Single carriageway roads may have primarily a through traffic function or a local access function. Both need to be provided safely. For the local access roads, environmental and community benefits are likely to be of greater importance than mobility .

- Many **roads will have a mixed function**. Where this is being achieved without a high collision rate ,these roads should be judged as through traffic roads. If, however, there is a substantial potential risk to vulnerable road users, these sections should be assessed as roads with a local access function .

- The speed limit on single carriageway rural roads should take into account :-
    - The collision history
    - The road's function
    - Existing mean speed
    - Use by vulnerable road users
    - Road geometry & engineering
    - Road environment including amount of road-side development.

TABLE 2 Speed limits for single carriageway roads with a predominant motor traffic flow function *(See separate section below for village speed limits)*

(replicated from DfT Circular 01/2013)

Speed limit (mph)	Where limit should apply:
60	Recommended for most high quality strategic A and B roads with few bends, junctions or accesses.
50	Should be considered for lower quality A and B roads that may have a relatively high number of bends, junctions or accesses. Can also be considered where mean speeds are below 50 mph, so lower limit does not interfere with traffic flow.
40	Should be considered where there are many bends, junctions or accesses,

	substantial development, a strong environmental or landscape reason, or where there are considerable numbers of vulnerable road users.

For C and Unclassified roads with important access and recreational function, the following speed limits are deemed appropriate and traffic authorities should use these as guidance when reviewing the speed limits on these roads (from para. 128 of DfT circular 01/2013)

Speed limit (mph)	Where limit should apply:
60	Only appropriate for the **best quality C and Unclassified roads** with a mixed (i.e. partial traffic flow) function with few bends, junctions or accesses. (In the longer term, these roads should be assessed against through-traffic criteria.)
50	May be appropriate **for lower quality C and Unclassified roads** with a mixed function and high numbers of bends, junctions or accesses
40	May be considered for roads • with a predominantly local, access, or recreational function eg in national parks or areas of outstanding natural beauty (AONB) or across or adjacent to , unenclosed common land; or • if they form part of a recommended route for vulnerable road users. • if there is a particular collision problem
The above does not imply that speed limits should automatically be reduced. In some cases an assessment may suggests that the existing speed limit is too low	

Villages:

- It is government policy that a **30 mph speed limit should be the norm** in villages.
- It may also be appropriate to consider **20 mph** zones and limits in built-up village streets which are **primarily residential** in nature, or where pedestrian and cyclist movements are high. Such limits should **not,** however, be considered **on roads with a strategic function or where the movement of motor vehicles is the primary function.**

- Traffic Advisory Leaflet 01/04 (DfT, 2004) sets out policy on achieving lower speed limits in villages. It suggests that reasonable minimum criteria for the definition of **what constitutes a village, for the purpose of applying a village speed limit of 30 mph**, would be that there were:
    - **20 or more houses** (on one or both sides of the road); and
    - a **minimum length of 600 metres.**
- If there are just **fewer than 20 houses**, traffic authorities should **make extra allowance for any other key buildings,** such as a church, shop or school. Where the character of a village falls outside this definition, local authorities are encouraged to use their discretion in deciding whether a lower speed limit is appropriate.
- The criteria above should give adequate visual messages to drivers to reduce their speed. It is recommended that the **minimum length for the new limit is at least 600 metres** to avoid too many changes in speed limits along a route, and to aid compliance. Traffic authorities may, however, lower this to **400 metres** when the level of development density

over this shorter length exceeds the 20 or more houses criterion and, in **exceptional circumstances, to 300 metres.**

- In some circumstances it might be appropriate to consider an i**ntermediate speed limit of 40 mph prior to the 30 mph terminal speed limit signs at the entrance to a village, in** particular where there are **outlying houses beyond the village boundary** or roads with **high approach speeds**. For the latter, traffic authorities might also need to consider other speed management measures to support the message of the speed limit and help encourage compliance so that no enforcement difficulties are created for the local police force. Where appropriate, such measures might include a vehicle-activated sign, centre hatching or other measures that would have the effect of narrowing or changing the nature and appearance of the road.

- In situations **where the above criteria for a village are not met and there is a lesser degree of development,** or where engineering measures are not practicable or cost-effective to achieve a 30 mph limit, but a reduction from the national 60 mph speed limit is considered appropriate, traffic authorities should **consider alternative lower limits of 40 or 50 mph**.