What are communities wanting?

Communities across the world are asking for 20mph (30km/h) as a norm in cities, towns and villages.

Local people understand how higher vehicle speeds blight communities and inhibit their ability to walk, cycle and use public transport; they know that lower speeds save lives and reduce pollution; and they appreciate that 20mph can be the cornerstone of building inclusive communities. In successive UK government surveys, 70% said that 20mph was the right speed limit for residential streets.

**Speed limits of 20mph in residential streets**

**Fig 1. 2019 National Travel Attitudes Study Wave 1 - 2019 Page 10**

How can Local Authorities respond?

How local councillors can respond to community needs when budgets are hard-pressed.

There are 4 key components:

1. Recognising the multiple benefits of lower speeds and its links to other agendas such as improving air quality and reducing CO2 emissions;
2. Understanding how changes in the 2013 national guidance make 20mph easier to deliver;
3. Appreciating the latest evidence about speed reductions from lower speed limits;
4. Considering how best to implement in a manner to maximise compliance;

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Why 20mph?

*It is the breadth of benefits that enables councillors to both seek and approve lower limits.*

With each 1mph reduction in urban average speeds delivering a 6% reduction in casualties\(^2\), 20mph limits typically deliver 20% fewer casualties when faster roads are included. As well easing the personal trauma of those involved and helping to lighten the load on the NHS, the benefits go way beyond, into population-wide improvements in public health and increased active travel, bringing mobility benefits to children and the elderly and reducing both emissions – 20mph is 25% cleaner\(^3\) than 30mph in urban settings – and noise – 50% quieter\(^4\) at 20mph.

The international context

*20mph / 30km/h is fast becoming the norm nationally and internationally.*

Lower speeds limits are being introduced across the world as health, road safety and environmental professionals see how they transform our communities. In its Global Plan for Road Safety 2021-2030, the UN calls for 20mph to be implemented as a default wherever motors mix with vulnerable road users. Some countries have responded to this at national level. Spain has already set a national 30km/h default for urban/village roads and Wales is planning the change to a national default 20mph limit for built up roads in 2023\(^5\).

How does DfT guidance enable 20mph?

*Changes in the 2013 DfT guidance make it easier and cheaper for Highway Authorities to promote wide-area 20mph schemes.*

The first move away from physically calmed 20mph zones to more relaxed limit schemes without additional physical calming came in 2006 with DfT Circular 01/2006\(^6\). While this guidance did not specifically encourage wide-area 20mph it replaced the 85th centile with mean speed as the reference for setting speed limits. The need to consider vulnerable users was almost mandated:

>"The needs of vulnerable road users must be fully taken into account in order to further encourage these modes of travel and improve their safety. Setting appropriate speed limits is a particularly important element in urban safety management, with significant benefits for pedestrians and cyclists."

This change in guidance was seized upon by several authorities: Portsmouth then Islington, Oxford and Warrington implemented 20mph as a norm across their respective authority with minimal new physical calming but relying upon signage and engagement while excepting some arterial roads.

\(^2\) Taylor, Lynam and Baruya,2000  
\(^3\) [https://www.20splenty.org/new_research_on_emissions](https://www.20splenty.org/new_research_on_emissions)  
\(^4\) [https://www.20splenty.org/noise_and_speed](https://www.20splenty.org/noise_and_speed)  
\(^5\) [https://www.20splenty.org/welsh_20mph_report](https://www.20splenty.org/welsh_20mph_report)  
The push for 20mph accelerated in the DfT Circular 01/2013\(^7\) with a number of relaxations, crucially allowing 20mph limits on roads with average pre-speeds above 24mph AND on main roads – previously disallowed. Other changes included:

- Making it cheaper and easier to implement by reducing the need for physical calming and allowing repeater signs and carriageway roundels as “traffic calming devices”.
- Endorsing the use of 20mph limits over many roads in an area.
- Measuring current mean speeds across a number of roads.
- Recognising the benefits of 20mph on main roads even though there may be an impact on motor journey time.
- Accepting that no more than “routine enforcement” would be required from the police.

The DfT continued to emphasise the guidance nature of Circular 1/2013, allowing Highway Authorities flexibility in setting local speed limits.

This encouragement of wide-area 20mph limits was further increased with the changes to signage regulations in 2016. Highway Authorities can use their discretion regarding repeater signs in 20mph limits, as well as reducing the number of terminal signs required.

**What has been the impact of the Circular 01/2013 changes?**

*Giving local authorities the ability to set wide-area 20mph limits using Traffic Regulations Orders on most urban streets has led to a proliferation of schemes covering 28 million people.*

Nearly half of all Local Authorities by population have implemented wide area 20mph, ranging from shire counties to unitary authorities and metropolitan boroughs\(^8\). In England 20 million people live in such authorities. These include many main roads with previous mean speeds above 24 mph and now seeing significant reductions. Transport for London’s 80km of 20mph arterial and main roads is set to increase to 220km by 2024\(^9\). In Wales a further 3.8 million people will get a national 20mph speed limit on built-up roads with exceptions determined where community buildings or housing does not exist. The Scottish Government has included an objective of setting 20mph as the norm for towns and villages by 2025, benefitting a further 5 million people\(^10\). In Oxfordshire, the county authority has pledged to make 85% of its roads 20mph, making “20mph the new 30mph”\(^11\).

**What’s the latest evidence about how lower speed limits reduce actual speeds?**

*Speed reductions in wide-area 20mph limits are much greater than previously assumed.*

Implementing 20mph limits as a norm, accompanied by engagement has surpassed the speed reductions expected in the DfT 01/2013 guidance. Figure 2 shows how speeds reduced when the

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\(^8\) [https://www.20splenty.org/20mph_places](https://www.20splenty.org/20mph_places)

\(^9\) [https://londonroadsafetycouncil.org.uk/london-intensifies-efforts-to-achieve-vision-zero/](https://londonroadsafetycouncil.org.uk/london-intensifies-efforts-to-achieve-vision-zero/)

\(^10\) [https://www.20splenty.org/scotgov_says_20splenty](https://www.20splenty.org/scotgov_says_20splenty)

Scottish Borders Council set 20mph as the speed limit in 100 communities. The greatest reductions – up to 6mph – were achieved on roads where the speeds were previously higher – around 30mph\textsuperscript{12}.

Of particular note is how the 2020 data compares with expectations nearly a decade ago. The DfT assumption in Circular 01/2013 was that average speeds reduced by 1-2mph, whereas the Scottish Borders data shows a higher reduction of 3mph. The Scottish Borders model also shows greater predictability, with an $R^2$ coefficient of determination is 0.73, compared with the low confidence of an $R^2$ of 0.39 in the “Speed Limit Assessment Tool” of the 01/2013 guidance.

Fig 2. Analysis of speed reduction data in Scottish Borders Council

**How have Local Authorities changed their approach?**

*The benefits of wide-area 20mph speed limits have led to the abandonment of the old site specific interventions with highly engineered physically calmed 20mph zones.*

Most 20mph limits in the UK are now authority-wide with no additional physical calming, not least because such an approach is 7 times more cost effective in reducing speeds across urban and village networks.

Local Authorities increasingly recognise that isolated and site-specific 20mph limits, such as outside schools, endorse speeding up to the 30mph “norm” elsewhere, offer poor value for money and fail to protect children on their complete journey from home to school. Far better to make 20mph the limit across all community streets.

\textsuperscript{12} \url{https://www.scotborders.gov.uk/news/article/4202/permanent_20mph_plans_recommended_for_approval_as_data_from_pilot_scheme_shows_drop_in_speeds}
Fig 3. The case for 20mph limits with engagement compared to physical calming

**Setting and enforcing – who is responsible?**

*The Highways Authority is the sole arbiter of setting local speed limits; not the police.*

The responsibility for setting local speed limits rests solely with the Highways Authority under the Road Traffic Regulation Act 1984. Although it must “consult” other agencies, in particular the Chief Officer of Police, they do not have the power to veto any proposed change in speed limit.

We have a key principle in the UK with regard to laws:

- Elected representatives of the people set laws;
- A professional police force charges offenders; and
- An independent judiciary sentences those found guilty.

This principle is followed with setting local speed limits. Local authorities, when setting speed limits, must take into account needs of vulnerable road users and do not need to take into account any operational decisions of the police on the level of enforcement. Indeed, if local authorities were to do so this would compromise the principle above. Operational decisions made by police forces based on contemporary levels of resource should not form a basis for setting a local speed limit that is incorrect for the community needs. Any attempt to pre-empt police convenience and set speed limits higher than appropriate in order to maintain compliance could be considered to compromise the Nolan Principles in terms of integrity, objectivity and accountability.

However, compliance with 20mph limits should not be seen as purely an enforcement issue. The local and national authorities implementing wide-area or authority-wide 20mph limits have developed smarter ways to engage and gain behaviour change to maximise the compliance and speed reduction level. And with both the wider acceptance of 20mph as a norm and the use of speed limiters (ISA) on new car models from 2022 this will further enhance compliance levels.
How to deliver

The key to successful delivery of 20mph limits is to recognise that this is more about engagement and endorsing a social consensus that 20mph is appropriate than about traffic engineering.

Successful wide-area 20mph defaults are based on developing a multi-agency team that collaborates. This includes local communities, traffic, public health, emergency services, education and child/elderly welfare. This team brings a wide range of skills and resources to the roll-out.

It is important to recognise that 20mph limits are deployed across a wide spectrum of streets that range from tight and narrow housing areas to main roads. The speed reductions will vary across these. Already slow roads will probably show no change, faster roads will show up to 7mph reduction in speeds but may not gain full compliance, whilst medium speed roads are expected to reduce to around 20mph. Since faster roads are where the greatest conflicts take place between motors and vulnerable road users, it is here that speed reductions can be most beneficial in terms of casualty reductions.

Engagement is often put into the context of community benefits from lower speeds. Calderdale had a tagline of “Love our Streets” associated with the roll-out. Hence 20mph was seen across the authority as a positive intervention. Edinburgh used “Slow down – Life is Better at 20”. Bristol used “20mph a little bit slower. A whole lot better” and “Bristol’s Better at 20”. Kent is using “Healthier, Safer, Cleaner”.

Engagement from Calderdale Council

Engagement from Kent County Council

Engagement from Bristol City Council
What was important in all of these campaigns was the involvement of public health with their skills and resources on behaviour change. These included social media stories, press articles, etc to spread the word that going 20 would make people’s places better places.

Setting 20 as a norm was not therefore done in stealth mode one street at a time, but as a planned and phased implementation whereby all areas in the authority knew that they would be getting their 20mph limits over time. Usually this was 2-3 years. Schools were used also to discuss the benefits of lower speeds and take messages home to parents on the benefits for children of lower speeds. So increasing the community wide benefit ownership.

Of course, many authorities already have legacy 20mph zones, often with physical calming. With the latest guidance these can be cost-effectively expanded without adding new physical calming. In addition, new 20mph zones can be created simply relying on an existing mini-roundabout or other feature to form the single physical device that is now required in a 20mph zone.

Low-cost gateways are also a good way to mark the entrance to a whole community, especially when coming from a rural 60mph road. Leaving a 30mph buffer zone may be useful. But key is to position the transition point from a higher speed to 20mph at a point where the driver recognises the start of a community. Aligning “community” to 20mph consistently helps endorse that message that 20 is plenty for communities.

Other low-cost interventions may be used on faster roads, including central white line removal and the staggering of parking bays. In town centres and high streets, this might also include introducing 24/7 bus lanes, using white lines to narrow general traffic lanes and introducing protected cycle lanes using wands etc.

**Conclusion**

Whilst 20mph limits without the coercion implicit with physical calming do present challenges, this is also a great opportunity to re-frame speed not only with road danger reduction but also the freedom to walk and cycle, the reduction in noise and emissions as well as the greater community ownership of streets. This has the capacity to tie in closely with other key policy agendas such as improving air quality, reducing emissions and improving our levels of activity.

It marks a change from site-specific interventions to a population-wide nudging of attitudes and endorsing public consensus to gain better streets for people. It requires differing skills in order to organise a phased authority-wide implementation AND authority-wide engagement.

Reductions in both speed and casualties are very positive and popular with residents, especially when implemented across whole authorities with engagement. With 20 million people living in England where it has already been done there can be no claims of barriers to implementation. 20 is becoming the new 30, not just in UK but around the world. And 20mph limits are one of the most effective, implementable and cheapest road changes that are possible within our cities, towns and villages. It really is time to say 20 is plenty, wherever people mix with motors in our communities.

Rod King MBE
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