

Response to KCC's consultation on Active Travel: June 2016

Background

20's Plenty for Kent is responding to Kent County Council's consultation on Active Travel on behalf of the twenty local '20's Plenty for us' campaign groups in Kent. 20's Plenty for Kent supports KCC's objective of increasing Active Travel and believes that the strategy should take more account of the benefits of having a default speed limit of 20mph on the county's lit roads. Such a move is the cheapest and most effective way of increasing the number of people travelling actively to work, school and for daily journeys.

15.5 million people live in local authorities which have rejected 30mph in favour of 20mph as the default speed limit on streets where people live and work. Such local authorities are finding multiple economic, health, social and environmental benefits from implementing wide-area 20mph schemes.

Response

20's Plenty for Kent calls on KCC to include in its Active Travel Strategy a five-point plan:

1. Use Public Health England's recent guidance to local authorities¹ on how 20mph can achieve significant increases in cycling and walking.
2. Follow the Department for Transport's 2013 guidance on setting local speed limits and introduce:
*"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"*²
3. Adopt a 20mph default speed limit in residential streets throughout the county to take particular account of the needs of *"existing and potential levels of vulnerable road users"*³
4. Follow the UK government's objective of making *"cycling and walking the default natural choice for shorter journeys or as part of a longer journey"*⁴.
5. Call on the UK government to legislate to make 20mph the default speed on lit roads.

20's Plenty for Kent will be pleased to discuss with KCC councillors and officers how a county-wide 20mph default speed can contribute to the county's Active Travel Strategy and to achieve the authority's road safety and health objectives in an efficient and cost effective manner⁵.

¹ ["Working Together to Promote Active Travel: A briefing for local authorities"](#)

² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/63975/circular-01-2013.pdf - page 3

³ Ibid - page 9

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/511235/cycling-and-walking-investment-strategy.pdf

⁵ <http://www.20splenty.org/networkwide20>

How 20mph brings multiple benefits for Active Travel in Kent

Introduction

Local authorities that have rejected 30mph as the default speed limit in favour of 20mph on streets where people live, shop and work are finding multiple benefits: popularity, financial, health, environmental & congestion as well as reductions in road danger and legal risk.

Popularity

20mph is already popular and gains in popularity in authorities that implement 20mph schemes. The interim report from the review by WS Atkins, set up by the DfT in 2014, shows that in 15 case studies, the proportion of residents supporting the proposed schemes rose from 51% before implementation to 75% afterwards. Drivers also supported 20mph schemes with 66% in favour. Other studies show support from residents for 20mph ranging between 60% and 70%.

Support for 20mph has grown from 7 * 20's Plenty campaigns in Kent in 2015 to 20 by June 2016.

Financial

Whilst 20mph has always been value for money, the reduced physical traffic calming in the 2013 DfT guidance and reduced signage required under The Traffic Signs Regulations and General Directions 2016⁶ makes it even cheaper to implement. Older schemes, with high levels of traffic calming, cost around £60,000 per km. Newer schemes cost around £1,400 per km, or £3 - £5 per person. Edinburgh⁷ will be introducing a city-wide 20 limit covering 495,000 people at a cost of £2,220,000 – some £4.50 per head. That's the equivalent of £6m for the whole of Kent, a figure which is expected to fall with the need for fewer repeater signs.

Restricting 20mph to individual, small schemes ends up being more costly, because wide-area schemes require less physical calming and enforcement in order to achieve compliance. The majority of costs for 20mph schemes are from the capital budget, which local authorities can find easier to access than the revenue budget.

Whereas newer, signed only limit schemes typically bring about lower overall reductions in speeds – 1-2 mph – the impact on roads with faster speeds is greater. E.g. Portsmouth saw an average drop of 7mph on roads where the average speed was previously more than 24mph⁸. ROSPA estimates that a reduction in average speeds of 1mph reduces the crash rate by 6% on urban and residential roads⁹.

The cost of those killed and seriously injured on Kent's roads in 2014 is estimated at £220m, of which 1/3 are pedestrians and cyclists, mostly on urban roads.

A 6% reduction in those casualties alone would generate a £5m cost saving, a 12 month payback.

⁶ <http://www.legislation.gov.uk/ukxi/2016/362/contents/made>

⁷ <https://landorlinks.app.box.com/s/fivv96p7vkd1q5dug6m1uh7z85eon2il/1/6765400698/55110017574/1>

⁸

<http://webarchive.nationalarchives.gov.uk/+/http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme4/interimeval20mphspeedlimits.pdf>

⁹ <http://www.rospace.com/road-safety/advice/drivers/speed/inappropriate/>

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Health

Obesity in Kent mirrors the rest of the UK: 33% of year 6 children and 65% of adults are overweight. KCC recognises the health benefits of 20mph¹⁰, but “rations” schemes to the least healthy areas. As well as creating a societal norm of 30mph, this fails DfT guidelines on setting speed limits.

Research in South Central Edinburgh¹¹ found that modal shares in the pilot area increased by 7% for walking and 5% for cycling. The proportion of children of all school ages cycling to school increased from 4% to 12% after implementation and from 3% to 22% amongst older primary school children.

The low and falling levels of cycling in Kent – 1% of all trips – is in contrast to the UK Government’s objectives of increasing walking and cycling.

Environment

Air and noise pollution issues are rising up the political agenda. A Royal College of Physicians’ report¹² shows how air pollution is causing the early death of 40,000 people per year – nearly 1,000 in Kent. Traffic is a major cause of air and noise pollution and the report’s recommendations include promoting “*alternative transport to cars fuelled by petrol and diesel; this may be walking, cycling, and use of public transport or electric/hybrid cars.*”

In May 2016, Public Health England’s report entitled “Working Together to Promote Active Travel: A briefing for local authorities¹³” highlights the benefits of 20mph.

“There is also a growing evidence base on the benefits of 20mph speed limits in support of [increasing walking and physical activity] and repeated national surveys show strong public support for 20mph in residential streets. Many towns and cities in England have either implemented or are committed to 20mph speed limits across much of their road networks.”

20mph limits helps to cut air pollution in two ways:

- The South Edinburgh study referred to above¹⁴ shows how 20mph increases the modal share of walking and cycling. Each journey on foot or by bike previously made by car reduces pollution.
- Vehicle emissions. A report for City of London from Imperial College London¹⁵ shows how, compared with 30mph, 20mph speed limits benefit local air from lower emissions of particulates, of PM10 and, for diesel engines, of NOX:
 - NOX emission factors, which were higher for petrol vehicles at 20mph, were **lower for diesel** vehicles – the main polluters;
 - PM10 emissions are lower for both petrol and diesel vehicles with engines under 2.0 litres.
 - Reduced brake and tyre particulates from less acceleration and deceleration.

As well as reduced air and noise pollution from increased levels of walking and cycling, 20mph limits cut air pollution by reducing certain emissions from motor vehicles.

¹⁰ “Identify locations for 20mph schemes which would assist with delivering targets set out in Kent’s Joint Health and Well Being Strategy”, KCC Policy on 20mph, October 2013.

¹¹ http://www.20splentyforus.org.uk/UsefulReports/South_Central_Edinburgh_20mph_Limit_Pilot_Evaluation.pdf

¹² <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>

¹³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523460/Working_Together_to_Promote_Active_Travel_A_briefing_for_local_authorities.pdf

¹⁴ http://www.20splentyforus.org.uk/UsefulReports/South_Central_Edinburgh_20mph_Limit_Pilot_Evaluation.pdf

¹⁵ <http://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/Documents/speed-restriction-air-quality-report-2013-for-web.pdf>

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Congestion

The evidence is that 20mph has little or no negative impact on congestion and can be positive:

- Increased walking and cycling reduces the number of journeys by car;
- Slower speeds increase road capacity by reducing distances between vehicles;
- Traffic joining from side roads find it easier to join main roads with lower speeds; and
- Lower motorway speed limits at congested times improve safety and smooth traffic flows.

Regarding journey times, a 20mph limit has a negligible impact in an urban environment and does not significantly alter trip lengths or inconvenience drivers. It is the number and duration of stops that dictate the length of a journey and a constant 30mph is rare due to the road environment. This is neatly illustrated by a short video along Whiteladies Road in Bristol¹⁶. A car driving at a steady 20mph stopped less frequently, often had a clear road in front and arrived at the destination at almost the same time as the car trying to drive at 30mph.

In planning for a 20mph limit in the City of London, a report from the Director of the Built Environment to four committees¹⁷, found that:

“The majority of journeys ...which have an origin or destination in the City [found] increased journey times over a representative 1.6 mile-journey [of] 25 seconds on average.”

Introducing 20mph does not materially increase journey times and may reduce them.

Road danger

The existing approach to road safety in Kent is demonstrably not working. The numbers killed and seriously injured on roads in Kent, which fell between 2005 and 2010 is rising again and is now higher than in 2009. The situation amongst vulnerable road users, who now comprise 60% of those casualties – up from 46% in 2005 – is worse; the figure of 377 pedestrians, cyclists and motorcyclists that were killed and seriously injured in 2014 is 20% HIGHER than in 2005.

KCC’s existing strategy of targeting specific accident blackspots fails to work for vulnerable road users, because there is no clear evidence of collision clustering. Evidence elsewhere does exist, for example from Montreal¹⁸, showing how just 4% of pedestrian injuries occurred at 22 identified blackspot intersections. The remaining 96% of pedestrians were injured at more than 3,500 different crash sites, none of which were identified as “blackspots”.

Evidence from the University of the West of England on the ‘prevention paradox’¹⁹ shows road safety gains from shifting its focus to removing road danger for all users, including implementing more 20mph schemes to help to protect the most vulnerable road users.

¹⁶ https://www.youtube.com/watch?v=pW_fyuybDYw

¹⁷ City of London: 20mph Speed Limit Benefits and Disbenefits Investigation (Para 13 on page 4)

¹⁸ P. Morency and M.-S. Cloutier, “From targeted “black spots” to area-wide pedestrian safety,” Injury Prevention, vol. 12, no. 6, pp. 360–364, 2006. View at Publisher · View at Google Scholar · View at Scopus

¹⁹ <http://travelwest.info/project/ee-109-prevention-paradox-population-strategies-applied-transport>

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Legal

A paper from the Urban Design Group²⁰ highlights the risk that highway authorities face from corporate manslaughter cases for gross negligence if they use out-of-date design standards for their streets or set inappropriate speed limits.

- Many highway authorities continue to use the Design Manual for Roads and Bridges from 2008, despite the more recent design standards giving better protection to vulnerable road users.
- Research from Royal Holloway, University of London²¹, shows that children under 12 cannot accurately judge speeds above 20mph.
- DfT guidance on setting appropriate speed limits makes no mention of arbitrarily retaining 30mph limits due to a lack of casualties or residents being “too healthy”.

A highway authority risks facing a face legal challenge in the event that a vulnerable road user is killed or seriously injured on or near a road with an inappropriate speed limit.

WS Atkins review of 20mph speed limits

Whilst this report has been trailed as revealing important insights into 20mph schemes, the report is limited to comparing the impact of signed-only limits with physically calmed zones. Interim results reported at the Ready for 20 National Conference merely confirm existing evidence: the popularity of 20mph schemes, the benefits for walking and cycling and for communities and the fact that 20mph makes drivers more aware of hazards and risks.

Local authorities that await the full report, before implementing 20mph schemes, risk failing in their duties to set appropriate speed limits.

Faversham case study

In autumn 2015, Faversham Town Council requested KCC to implement a town-wide 20mph schemes. Such a scheme would bring all of the benefits highlighted above – road safety, active travel, pollution and congestion. The proposal was rejected on the basis of the town having insufficient road casualties – despite Faversham having 69 casualties in the past 3 years, and 175 in the past 10 years – and not enough wards rated as high priority for health outcomes. For a town of 10,000, the likely cost of 20mph would run into a few 10s of £000.

In contrast, a new roundabout, costing £450,000 was approved to “improve road safety and traffic flows”. The road safety concerns highlighted tailbacks onto the M2. In rejecting the alternative of traffic lights at the junction, the KCC’s traffic engineer’s road safety concerns for vulnerable road users were ignored.

At a subsequent Swale Borough JTB, the roundabout decision was suspended on cost grounds in favour of investigating 20mph throughout Faversham and, ultimately, Swale. These contrasting decisions highlight flaws in the decision-making process within KCC:

- Inconsistent assessment of road safety during a single year: 20mph rejected due to lack of casualties; roundabout approved because of road safety concerns;

²⁰ <http://www.udg.org.uk/udupdate/news/urban-update-12-feb-2016>

²¹ http://www.20splentyforus.org.uk/Press_Releases/children's%20vision%20of%20car%20speeds%20and%2020%20mph.pdf

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- The decision to implement a roundabout instead of traffic lights promotes the needs of car occupants over those walking or cycling and exemplifies why vulnerable road users now comprise 60% of all those killed and seriously injured in Kent
- A preference for a solution to address a single issue – traffic flow – at a single junction over one which addresses multiple issues at significantly reduced cost misuses taxpayer funds.

When setting its policies, KCC should bear in mind that an approach that addresses road danger for the majority will bring greater benefits than one which focusses on specific schemes to solve an individual problem for one group of road users.

Tunbridge Wells case study

In 2015, a scheme to implement 20 mph in the Culverden area of Tunbridge Wells was under consideration. The local county councillor had agreed to provide funding from his member's grant. Following a speed survey, KCC traffic engineers quoted a figure of £35,000 to physically traffic calm a single road in the area – Royal Chase – making the scheme unaffordable for the member.

This is an unacceptable outcome for an area which is entirely residential, includes 4 schools and which suffers from widespread rat-running by motor traffic.

An alternative approach would have enabled the total cost of the scheme to have been materially lower. Selecting a 20mph zone (rather than a signed only limit) scheme and including the already physically calmed road of Culverden Down would have removed both the need for a speed survey and for physical traffic calming in Royal Chase.

Such a scheme would have included about 14 streets (total length of 4 miles) plus numerous cul-de-sacs, covering around 6,000 residents. The project could have been limited to:

- 1) Consultancy amongst residents to gain widespread acceptance and, therefore, higher levels of natural compliance;
- 2) 8 sets of 20mph zone entry / exit signs on Molyneux Park Road, Boyne Park, Royal Chase, Culverden Park, John St, Culverden Down, Reynolds Lane and either Whitefield Rd or Beltring Rd;
- 3) A small number of repeater signs painted on the road;
- 4) Community activity, such as Community Speed watch; and
- 5) Police funded activity to support compliance.

Highway engineers are requested to devise schemes that benefit significant numbers of residents and all classes of road users and avoid over-engineering solutions that, ultimately, cannot be delivered on cost or practicality grounds.