

Report subject	Our People and Communities: 20mph options appraisal
Meeting date	6 March 2024
Status	Public Report
Executive summary	The purpose of this report is to present the outputs of a review of local and national 20mph initiatives and to seek endorsement for a programme to enable the delivery of 20mph speed limits to create safer neighbourhoods across the three towns and make journeys by all modes safer. This will be achieved in areas through consultation with residents in priority communities, and through the reinstatement of a dedicated 20mph speed limit budget allocation within the Council's Local Transport Plan (LTP) Capital programme.
Recommendation	<p>It is RECOMMENDED that Cabinet recommend to Council:</p> <p>a) that a dedicated budget is included in the Local Transport Plan (LTP) Capital programme for 2024/25 financial year to recommence delivery of 20mph speed limits on a neighbourhood basis with a focus on residential roads and this is continued into future years subject to the availability of capital funding.</p>
Reason for recommendation	<p>There are approximately 77 areas across the conurbation that already have 20mph limits in place as shown in Appendix A.</p> <p>The installation of further 20mph limits would create safer neighbourhoods and streets which is aligned with both the Our People and Communities and Our Place and Environment vision and ambitions within the Corporate Strategy.</p> <p>Local evidence suggests that 20mph speed limit only schemes are effective at reducing the number and severity of collisions that result in injuries and death on roads. This report therefore recommends that a dedicated 20mph speed limit budget is established.</p>

Portfolio Holder(s):	<p>Cllr Vikki Slade Leader of the Council and Portfolio Holder for Dynamic Places</p> <p>Cllr Millie Earl Deputy Leader of the Council and the Portfolio Holder for Connected Communities</p> <p>Cllr Andy Hadley Portfolio Holder for Climate Response, Environment and Energy</p>
Corporate Director	Jess Gibbons - Chief Operations Officer
Report Authors	<p>Julian McLaughlin - Director for Infrastructure</p> <p>Richard Pincroft - Head of Transport and Sustainable Travel</p> <p>Richard Pearson - Transport Network Manager</p>
Wards	Council-wide
Classification	For Recommendation

Background

National and International data linked to traffic speed and impact of the speed of traffic

1. Speed is a key factor in the number and severity of collisions and studies by the Royal Society for the Prevention of Accidents and Road Wise (and others) have shown that there is a significant link between speed of motor vehicles and the severity of the outcome of a collision. At 20mph a pedestrian has an 97.5% chance of survival when struck by a vehicle whereas at 30mph that drops significantly to 80%¹. A vehicle's stopping distance is 12m at 20mph and 23m at 30mph².
2. If motor vehicles are travelling at 20mph, instead of 30mph, this reduces the differential speed between them and people walking or cycling, which improves actual and perceived safety. People generally cycle at between 10 and 15mph. Safety concerns are a key barrier to more people using active modes. The current Cycle Infrastructure Design guidance, Local Transport Note 1/20 recommends that where traffic speeds are in excess of 20mph, then segregated cycling infrastructure is required in order for that route to be suitable for the majority of people to be able to cycle. Dedicated cycle infrastructure is expensive and introducing more 20mph speed limits therefore means more roads would be inherently safer for cyclists (subject to vehicle

¹ [The chance of a pedestrian surviving - Roadwise](#)

² [Highway Code Stopping Distances \(publishing.service.gov.uk\)](#)

speeds reducing) without the costs and disruption associated with the introduction of segregated cycle facilities.

3. The International Transport Forum at the Organisation for Economic Co-operation and Development (OECD), World Health Organisation (WHO), the Parliamentary Advisory Council for Transport Safety and the National Institute for Health and Care Excellence (NICE) all recommend 20mph speed limits in residential areas for reasons including improving safety, reducing conflicts and enabling more walking and cycling.
4. The RAC Foundation (motoring research organisation) supports “the introduction of 20mph limits wherever there is an over-riding road safety case”, but states that “the mobility and productivity needs of road users must also be taken into account”.
5. ‘20 is Plenty’ is a not-for-profit national group founded in 2007 based mainly on the concept that reducing speed limits reduces traffic speeds and this in turn reduces road casualties and creates a more pleasant road environment. 30mph is the national default speed set in UK legislation for urban roads (Section 81 of The Road Traffic Regulation Act 1984) and this group campaigns for the introduction of 20mph limits in all residential streets.

UK guidance and research for 20mph speed limits and zones

6. Before 1991, local authorities were not permitted to set speed limits below 30mph (according to the Road Traffic Regulation Act 1984). Since then, amendments to the Act and a number of Department for Transport (DfT) Circulars (providing advice to transport professionals and local councils) have allowed reduced speed limits to be applied in appropriate circumstances in accordance with the following guidance: Setting Local Speed Limits (DfT Circular 01/2013).
7. The current DfT guidance (2013) on setting local speed limits says that the speed limit on a road should be set to reflect the characteristics of the road so that any speed limit is mainly self-enforcing, i.e., most drivers will naturally drive at a speed close to the limit because they will recognise the character of the road and adjust their speed to suit:
“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.”
8. In this context any speed enforcement conducted by local Police forces is rational, proportionate and justifiable and this approach therefore helps maintain public support for policing by consent. The DfT guidance advises that 20mph limits are permitted where the mean (average) vehicle speed on a road has been measured as being 24mph or less.
9. There are two types of 20mph treatments, 1) 20mph zones; which have physical measures to reduce speed e.g., road humps/cushions, point closures

for motorised vehicles, mini-roundabouts, pedestrian crossings, chicanes, painted 20mph roundels and 2) 20mph limit; which have signs and no physical measures albeit can be complemented with painted 20mph roundels at regular intervals. The physical measures associated with zones make them significantly more expensive to implement than limit only schemes.

10. There have been two major studies on 20mph schemes in the UK in recent years. The Atkins report (2018) and the PACTS (Parliamentary Advisory Council for Transport Safety) report (2023) The outcomes of these are summarised in Appendix D and E respectively. Atkins highlights acceptance levels of the change amongst different groups, and that these increased after implementation. PACTS supports lower speed limits in urban areas but stresses that it is important that these deliver real benefits and not the illusion of change.
11. National research suggests (refer to appendices D and E and DfT Circular 01/2013):
 - a. 20mph limit schemes typically reduce traffic speeds by up to approximately 1mph but on some routes can reduce speed by up to 2mph, where the mean traffic speed was 25mph before the intervention. There is some evidence to suggest that greater speed reductions can arise; 3 to 5mph where speeds were approximately 30mph before.
 - b. 20mph limit schemes reduce casualties by 0 to 11%.
 - c. 20mph zones reduce casualties by between 40 and 60%.
12. A summary of what some other authorities have implemented and learnt is included in Appendix F.

Assessment of local (existing) 20mph zones and speed limits

13. There are currently approximately 55 x 20mph zones (with physical measures) already across BCP (many are very small outside of schools) and 22 x 20mph speed limit schemes (signs only) in total across the Council's highway network as shown in Appendix A.
14. A review of these 20mph zones and limit schemes has been undertaken and analysis of the data is summarised as follows:
 - a. 20mph limit schemes have achieved a casualty collision reduction of 48%.
 - b. 20mph zone schemes have achieved a casualty collision reduction of 37%.
 - c. The average casualty collision reduction across all types of 20mph scheme is 40%.

Noting:

- i. In the majority of cases there is 5 years of before and after casualty data.
 - ii. There are fewer limit schemes than zones and therefore the reduction for limit schemes may be statistically less certain than for zones and this may account for the significant variance between the performance of local schemes and more comprehensive national studies.
 - iii. The ongoing average financial benefit of the current 20mph schemes across BCP is approximately £3.9m per annum based on Department for Transport (DfT) figures for the assessment of the cost benefit of reducing casualties. No economic assessment has been carried out to understand the benefits relating to increases in active travel or the financial disbenefits of increase in journey times.
15. Casualty reduction is generally achieved where there is a historic road casualty problem. If there is no history of casualties, then casualty reduction is likely to be minimal or zero, albeit there could be perceptions of improved safety and wider active travel benefits. The assessment of 20mph limit schemes (mainly in Poole) suggests that the outcome locally has been significantly better than national studies found in regard to casualty reduction.
16. Prior to the 2023/24 financial year, the Council had a dedicated 20mph speed limit and/or zone budget allocation in the Local Transport Plan (LTP) Capital programme and the officer process for assessment and prioritisation of these schemes forms part of the minor transport guidance³ (refer to page 12 of the guidance). The council continues to receive regular requests for new 20mph schemes and there are currently 60 scheme requests on the list.

Partnership engagement

17. Dorset Police are a partner, and statutory consultee regarding the Traffic Regulation Orders (TRO) needed to make a speed limit change. They are the only authority with powers to enforce speed limits and have commented as follows:
 - a. *'Dorset Police would support a reduction in speed limit from 30mph to 20mph where a clear evidenced based approach has been taken, to demonstrate that the measure will initiate a reduction in speed and where possible to quantify and relevant, a related drop in collisions.'*
 - b. *It's important to note that Dorset Police will not be able to supply additional resource to monitor and enforce any proposed reduction in speed limits from 30mph to 20mph, and that operations to do so, would have to be built into existing operational capability.*

³ [BCP Council Minor Transport Scheme Request Guidance](#)

- c. *As with any speed limit, Dorset Police would focus its monitoring and enforcement activity based on risk, and in line with National Police Chief Council guidelines. With 20mph limits, and specifically in line with those guidelines, Dorset Police would only enforce where there is a significant risk from continuous high speeds, i.e. a proportionate approach*.
18. Dorset Police and the council work together as part of the Dorset Road Safe Partnership which includes community speed watch groups to encourage speed compliance in areas of concern.
19. The council and Go South Coast (GSC) trading locally as Morebus are members of the Enhanced Bus Partnership. GSC has advised that it supports the implementation of 20mph speed limits in residential roads where it is appropriate. It does not however, support the implementation of 20mph speed limits in roads and streets that are on bus routes where there is no obvious need for a reduction in speed limit from 30mph to 20mph due to the impact that it would have on journey times and service reliability. If not carefully considered this could increase operational costs leading to some routes no longer being commercially viable.

Options appraisal for 20mph speed limit and/or zone delivery across BCP

20. The following options have been considered:
- a. Do nothing. **NOT RECOMMENDED.** This would only see 20mph speed limit schemes or zones introduced as part of the delivery of schemes around schools and where historically significant numbers of casualties and or casualty clusters have arisen. Or as part of developer funded projects where relevant or as part of other capital improvement projects.
- b. **RECOMMENDED OPTION.** Commitment to deliver 20mph speed limits in residential roads and along appropriate routes across the three towns; delivery facilitated using the Local Transport Plan (LTP) Capital Programme to ensure that 20mph speed limit changes are delivered across areas annually (refer to plan in Appendix B showing indicative neighbourhoods for prioritisation). This would lead to neighbourhood areas and localised sections of non-residential routes where appropriate e.g. local high streets/centres being made safer and help to promote an increase in active travel.

The programme would be prioritised by ranking areas with reference to the Local Cycle and Walking Infrastructure Plan (LCWIP)⁴ to bring forward 20mph limits across areas that offer the best opportunity to reduce casualties and also promote active travel. The amount of funding available each year would be confirmed as part of the annual LTP Capital Programme approval process. Note: for the 2024/25 financial year the recommended allocation is £149k.

⁴ [BCP Council LCWIP 2022 \(bcpcouncil.gov.uk\)](https://bcpcouncil.gov.uk/lcwip-2022)

All roads within and on the boundaries of proposed areas or zones would be considered for 20mph treatment including for example local centres on distribution roads e.g., Wimborne Road through the Winton High St. area. Noting: Many other examples exist and could be feasible. Following delivery the impacts to be monitored to inform future delivery.

The impact of delivered schemes would be reviewed regularly to ensure value for money and if required following completion of the 20mph speed limits a programme of installing physical features shall follow where the evidence demonstrates they are needed.

- c. Council to deliver 20mph zones (includes physical features) to cover all residential roads and suitable local centres: **NOT RECOMMENDED**

Although desirable in some regards, the estimated cost of installing zones across residential areas of BCP is in excess of £300m and therefore unfortunately this option is considered beyond the scope of any funding that is, or likely to become available. Furthermore, analysis of the local evidence suggests that 20mph speed limit only schemes are better value for money.

21. Table showing summarised impacts (approximated) of options:

Options ->	a (No change)	b (Some annual capital allocation to deliver limit schemes in prioritised areas)	c (Commitment to deliver 20mph zones across BCP)
Affordable	✓	✓	x
Likely casualty reduction impact	✓	✓✓	✓✓✓
Effectiveness at promoting active travel	✓	✓✓	✓✓✓
Noise reduction	✓	✓✓	✓ to ✓✓✓

Probable impact on emissions	Negligible	Probably None	Probably None
Probable impact on brake and rubber particulates.	Some reduction	Some reduction	Some reduction
Overall Economic Impact	unknown	unknown	unknown
		Recommended	

Summary of financial implications

22. Summary of financial implications of the options:

- a. Do nothing = No change when compared to 2023/24 financial year.
- b. Do something (20mph limits) = Affordable as part of the LTP Capital Programme budget setting process if there is a dedicated 20mph speed limit budget to enable phased delivery. Note: there are no revenue implications because all resources and works associated with the implementation of speed limits and/or zones can be recharged to the LTP programme. The LTP 2024/25 Cabinet report recommends a £149k budget for 20mph Speed Limit implementation.

RECOMMENDED

- c. Do something (20mph zones in all residential roads) = unaffordable.
23. The recommended option b), is affordable within the scope of existing capital budgets and has the advantage of maximising the benefits of 20mph speed limits whilst minimising their disbenefits through more detailed assessment and consultation in regard to how and over what extent the 20mph speed limits would be applied - this would not be a blanket 20mph speed limit everywhere approach. Further to the above, it has the advantage that the programme can be accelerated in future years if/when more LTP Capital Programme grant is available. The intention would be to focus on areas where 20mph speed limit is likely to have the greatest benefit using an evidenced based approach. In addition, any proposed areas would be subject engagement with local Members to ensure transparency and buy-in from the start.
24. The impact of any new 20mph speed limits would be monitored in future years to ensure that they are effective and therefore, represent value for money. This would be assessed by pre-implementation surveys and then analysis 3-years post-implementation.

25. The total cost of implementing 20mph across all BCP neighbourhoods is difficult to calculate accurately due to the varied characteristics of local areas. Implementation costs of any early phases would be monitored to inform the number of areas that could be implemented in future years.

Summary of legal implications

26. The Council, as Highway Authority can make traffic regulation orders (TROs) under the Road Traffic Regulation Act 1984, including moving orders relating to speed so can lawfully proceed with any of the options subject to it following the legally prescribed process for TROs.
27. The recommended option would enable the Council to progress with a prioritised programme of 20mph speed limit schemes local schemes that would be consulted on locally prior to a formal decision to progress.

Summary of human resources implications

28. If the option b) is supported, then officers in the Transport and Sustainable Travel Unit would develop an updated prioritised list and implementation programme for delivery based on the neighbourhood areas shown in Appendix B and prioritised according to the available evidence including likely casualty reduction and propensity for increases in active travel noted in the LCWIP.
29. The cost of preparing the lists and forward scheme programme would be recharged to the LTP capital programme.
30. The Council's consultation and communication teams would be required to promote, facilitate and report the outputs of public engagement regarding proposed 20mph speed limit changes. The costs associated with this activity including officer time would be rechargeable to the LTP capital programme. This is also the case for any finance (inc. procurement) and legal resource.

Summary of sustainability impact

31. A Transport for London (TfL) report⁵ suggests that 20mph zones have no net negative effect on emissions and that the resulting reduced acceleration and braking reduces brake and tyre particulate emissions. If a speed reduction is achieved, the study suggests that a noise reduction would also arise. Other studies suggest that vehicles operate less efficiently below 30mph and with higher resulting tailpipe emissions.
32. If vehicle speeds are reduced, then there should be an increase in walking, wheeling, cycling and scooting.

Summary of public health implications

33. TfL reported (see reference in section 31 above) that lowering vehicle speeds in urban areas supports a shift to walking and cycling. It refers to an evaluation

⁵ [Speed, emissions & health \(tfl.gov.uk\)](https://www.tfl.gov.uk/road-works/speed-emissions-health) 2018

of 20mph zones in Edinburgh which found the proportion of primary school children walking to school rose from 58% to 74%, cycling to school rose from 3% to 22% and taking the car to school fell from 21% to 13%. There is also some evidence in national studies that 20mph schemes help encourage active travel.

34. Active travel is strongly supported by Public Health organisations due to the positive physical and mental health and wellbeing impacts.
35. The possible changes in emissions of all types are considered to be marginal as there are both positive and negative impacts that are relatively small and difficult to accurately quantify.
36. The average casualty collision reduction across all types of 20mph scheme is 40%. Public Health work in partnership with the Police and council to reduce road related casualties as part of the Dorset Road Safety Partnership.
37. Public Health Dorset (PHD) have offered their support to the proposal as a means of improving safety and enabling more people to walk, wheel and cycle (active travel). Increasing active travel offers significant opportunity for improving and protecting the health and wellbeing of people in BCP through increasing physical activity, reducing death and injury from crashes, and improving air quality. The proposal aligns with the objective of 'Building movement into daily life' in Dorset's physical activity strategy: A Movement for Movement which has been endorsed by BCP Health and Wellbeing Board. Measures to increase safety and create environments that support active travel and the public health benefits it can bring are most effective when accompanied by multi component or 'mixed' interventions to encourage behaviour change e.g. 20 mph speed limits along with School Streets programmes, travel plans, cycle skills training etc.

Summary of equality implications

38. A brief Equalities Impact Assessment (EIA) screening has been prepared, see Appendix C. The extent of equality implications will depend on the scale, nature of and areas/places considered, and an EIA will be undertaken for each scheme. At this stage general impacts can be identified but the degree to how people are affected will be proportionate to the level of change from the current position.
39. The Road Safety community generally accepts that reduction of speed limits will reduce the number and severity of road traffic accidents. Some protected groups are more likely to be involved in and have more severe accidents. Further inequalities arise from recovery times and the health impacts of accidents. Research has shown age and disability impacts with children, much younger adults, older people and disabled people disproportionately negatively impacted. People covered by pregnancy and maternity are also affected. The costs to society of road traffic accidents needs consideration as a counterpoint to the additional time costs through slower residential driving speeds when 20mph areas are introduced.

40. Reduction of accidents is the main reason for introducing 20mph areas, but a more equal highway environment, reducing the dominance of motor vehicles, improves conditions for active travel. This is of benefit for people that regularly walk, wheel or cycle. This also could encourage under-represented groups to travel differently as some specific concerns raised to a higher extent by these groups are addressed. By enabling safer travel choices there will be a particular positive impact on lower income households who are less likely to have access to a car.
41. Creating 20mph zones prioritises decreasing accidents and reduction of the impact of motor traffic in neighbourhoods over personal mobility freedoms for drivers and passengers. Additional economic costs arise from longer journey times and any displacement of traffic will impact other areas where 20mph zones are not implemented. (Unless all residential areas are covered which means speed limits are equal – eliminating time advantages by taking another route). The economic impact of any extent of 20-mph limits will affect all, but some groups who rely on cars or works vehicles will be particularly affected, including care workers, people that rely on taxis, some parents with young children and disabled people where the car is their only possible means of travel. The profile of people who proportionately drive more – men, middle aged groups, people without a disability, white British, heterosexuals and Christians will generally consider their freedoms associated with driving are being compromised, though individual views may vary.
42. At this stage equality considerations are generic and to guide the high-level options for BCP future strategy in this area. Detailed and local impacts and mitigations to resolve concerns need to be evaluated at a later stage. The perspective is whether to prioritise reducing the number and severity of traffic accidents – which do negatively impact the more vulnerable in society to a higher extent. Or whether to highlight wider economic considerations which are likely to affect far more people but with a much lesser individual impact than that of a serious road accident.
43. Public consultation on specific area proposals should be carried out to evaluate the likely impact more fully on those with protected characteristics before any final decision is taken to progress a local scheme.

Summary of risk assessment

44. There is a risk that the delivery of 20mph speed limits with no consideration of the characteristics of the roads could create a culture of non-compliance. This is because if the roads are not characteristically roads that drivers would tend to drive at 24mph or slower they may perceive the speed limit to be inappropriate or unjustified and may therefore ignore it. Police enforcement is likely to be limited and in combination this may cause a culture of general non-compliance to speed limits. These risks are hard to quantify and essentially relate to public attitudes and levels of acceptance of any interventions. In Wales there is some emerging evidence that vehicles speeds may be increasing following the national rollout of 20mph. The more rational and well

evidenced an approach is, the higher the likely acceptance and compliance. Public engagement on an area-by-area basis should minimise this risk.

45. The implementation of any highway measures involves traffic management and there is an element of risk to the public and the workforce during delivery although this can be mitigated by the correct and lawful use of traffic management in line with statutory guidance and best practice.
46. The Transport Secretary and DfT have recently launched a Plan for Drivers to focus more on drivers and this may conflict with some recommendations within this report, in particular options c) and d):

[Plan for drivers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf)

This policy position only recently emerged but suggests that widespread (blanket) use of 20mph limits is not appropriate.

It states the Government will:

Update guidance (in England) on 20mph speed limits. While 20mph zones are an important tool in improving road safety in residential areas, over-use risks undermining public acceptance, so we are clear that 20mph zones should be considered on a road-by-road basis to ensure local consent, not as blanket measures.

Background papers

Atkins Report:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf

PACTs report (funded by Road Safety Trust):

<https://www.roadsafetytrust.org.uk/news/20mph-more-effective-when-accompanied-by-traffic-calming-o313y>

Speed, emissions & health The impact of vehicle speed on emissions & health: an Evidence summary June 2018: <https://content.tfl.gov.uk/speed-emissions-and-health.pdf>

Welsh 20mph assessment report:

<https://senedd.wales/media/fo3ibze5/sub-ld15187-em-e.pdf>

Appendices

Appendix A – Maps showing existing roads with 20mph speed limits across BCP

Appendix B – Map showing indicative future 20mph speed limit areas for prioritisation

Appendix C – EIA Screening

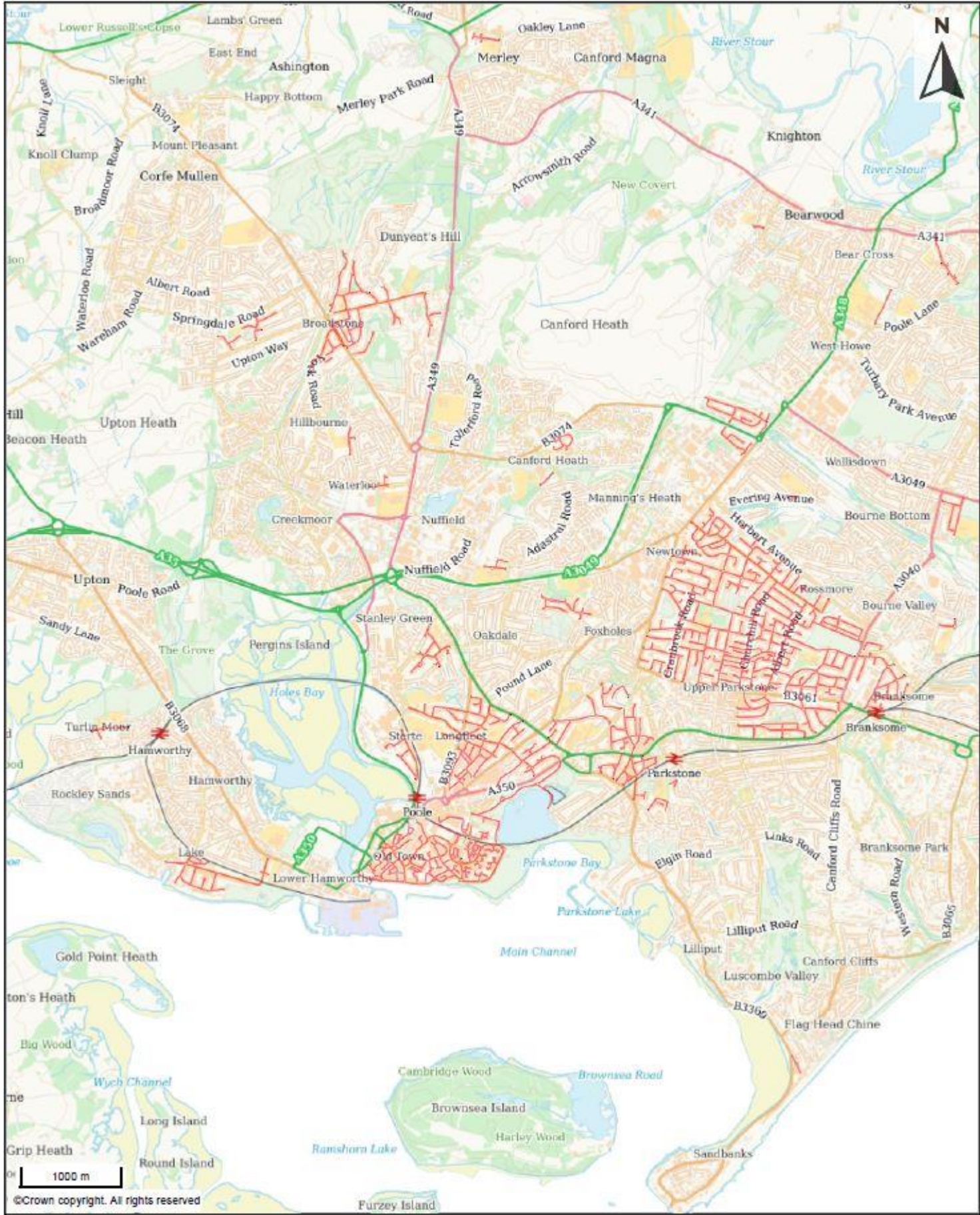
Appendix D – Summary of Atkins Report

Appendix E – Summary of PACTS Report

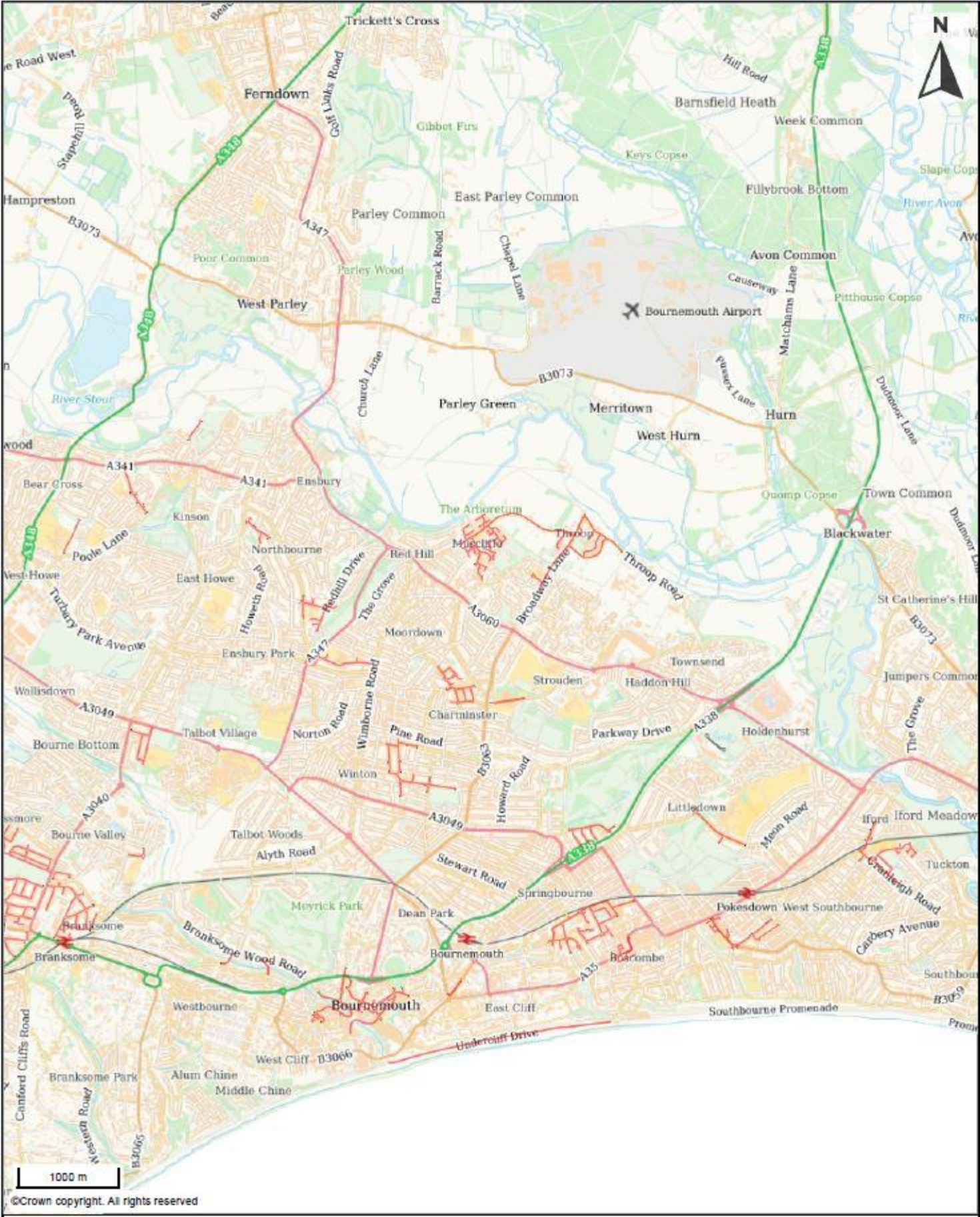
Appendix F – A Summary of What Some Other Authorities Have Implemented and Learnt

Appendix A - Maps showing existing roads with 20mph speed limits across BCP

BCP West

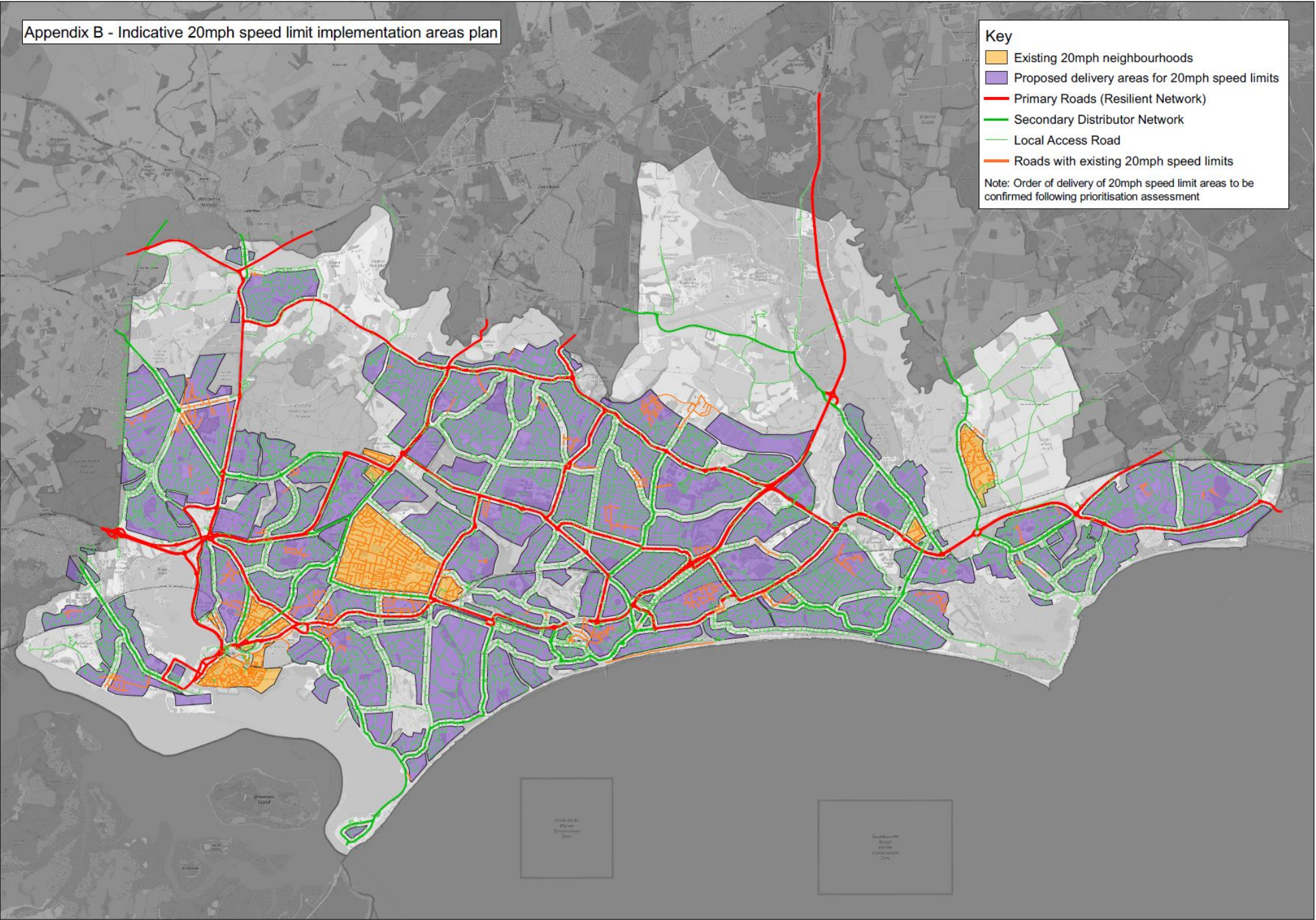


BCP Central





Appendix B - Map showing indicative future 20mph speed limit areas for prioritisation.



Equality Impact Assessment: conversation screening tool

The Council is legally required by the Equality Act 2010 to evidence how it has considered its equality duties in its decision-making process.

The Council must have due regard to the need to -

- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to -

- (a) remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic;
- (b) take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it;
- (c) encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

A link to the full text of [s149 of the Equality Act 2010](#) which must be considered when making decisions.

	Policy/Service under development/review:	<p>Progression of options as part of our road safety remit, to evaluate the policy for 20-mph speed limits on residential roads in BCP. These include maintaining the current position and consideration of expansion of the number of roads with a 20-mph speed limit.</p> <p>The Council had a statutory duty under section 39 of the 1988 Road Traffic Act to take steps to both reduce and prevent road collisions and casualties. In general, reducing speed limits is considered to contribute to reduction of numbers of and severity of Road Traffic Collisions – RTC's.</p>
	Are changes being made to the policy/service?	<p>The proposal is options, to review the extent of 20-mph speed limits in residential areas in accordance with the council Road Safety remit. Initially this will involve a consultation to establish a consensus on the extent to increase the number of locations where a 20-mph limit applies. Specific locations or projects are not being evaluated at this stage.</p> <p>There are three broad options –</p>

		<ol style="list-style-type: none"> 1. Continue to use the existing ranking process – assessing schemes on their merit and progressing subject to existing budgets. 2. Implement 1 to 4 targeted 20 mph speed limit zones each year. 3. Commitment to 20 mph speed limits on residential roads to be implemented incrementally, so all of applicable areas of BCP are in place by 2035. <p>As background, 20-mph speeds limits are introduced in two ways. Either through physical measures – road humps, cushions, pedestrian crossings; or by signage only for a particular stretch of road or zone.</p> <p>Implementing 20-mph zones in the BCP area is not new as there are currently 76 roads or zones where a 20mph limit exists. These are shown on a map – appendix 1, at the end of the screening tool. The location of these roads/zones is based on the willingness of the legacy authorities to introduce them with more areas in Poole and fewer proportionately in Bournemouth and Christchurch. There is not any conclusive link with the level of social deprivation in an area - as 20-mph areas are spread geographically over the BCP area with varying levels of prosperity.</p>
	Service Unit:	Infrastructure
	Persons present in the conversation and their role/experience in the service:	<p>Richard Pearson – Transport Network Manager/Professionally qualified with more than 30 years' experience.</p> <p>Richard Barnes – Service Unit Equality Champion.</p>
	Conversation dates:	19/9/2023, 16/10/23.
	Do you know your current or potential client base? Who are the key stakeholders?	<p>All road users – but specifically –</p> <p>Residents in streets considered for introduction of a 20-mph limit and people that travel using these streets – motorists, pedestrians, bus passengers, cyclists/wheelers. Changes to speed limits can influence how people travel, so all travel is potentially relevant.</p> <p>Emergency services – as changes in speed limits are likely to affect response times.</p>

		<p>Businesses/organisations that particularly rely on road transport – bus operators, taxis, haulage companies, delivery drivers.</p> <p>Agencies in healthcare, road safety, accident prevention, the police where changes in speed limits impact on the number and severity of road traffic accidents.</p>
	<p>Do different groups have different needs or experiences in relation to the policy/service?</p>	<p>The progression of 20-mph zones in residential areas is often divisive, with polarised views. The equality challenge is to identify the impacts on different groups considering information from campaigning road safety organisations and the opposite libertarian perspective citing impact on driving freedoms. There are many different needs or experiences in-between.</p> <p>Reducing the speed limit to 20-mph, is a key factor in reducing the number and severity of collisions according to the Royal Society for the Prevention of Accidents - ROSPA. At 20-mph a pedestrian has a 97.5% chance of survival when struck by a vehicle. At 30-mph the chance of survival falls to 80%.</p> <p>RTC's disproportionately affect people that drive powered two wheelers, pedal cyclists and pedestrians. Termed Vulnerable Road Users – VRU's – 77% of those killed or seriously injured are VRU's.</p> <p>Accidents rates are also higher in more deprived areas. In Wales a country wide 20-mph speed limit for residential roads has recently been introduced. A report making the case for implementation cited accident rates – particularly for child pedestrians, as figures were much higher for children from more deprived areas.</p> <p>Residents of residential roads where speed limits are reduced to 20 mph will have less vehicle noise and intrusion from motor vehicles.</p> <p>Reducing the speed limit is also considered beneficial to increase active travel – encouraging more people to walk, cycle or wheel as the environment on a 20-mph road is safer and the car less dominant. Studies have shown that where 20-mph zones are introduced, journeys by foot and bicycle have increased. In Edinburgh there was a 7% increase in journeys on foot and 5% by cycle, In Bristol the mode share of cyclists related to a scheme increased by 4%.</p> <p>Motorists where the speed limit has been reduced to 20-mph are likely to have different needs or experiences with views expressed that this is an impact on personal freedoms and causes longer journey times</p>

		<p>with related economic impacts. The Royal Automotive Club – RAC foundation, mentions that the “Mobility and productivity needs of road users must also be taken into account”. (when 20 mph areas are being considered).</p> <p>Changes to reduce the speed possible on a particular road or area will impact people and business/organisations using the area where changes are made. Where travel is by car or delivery vehicle, reducing speed is likely to be viewed as negative due to increased journey times.</p> <p>For others using active travel – walking/cycling/wheeling – an improved road environment for their needs is likely to be seen as positive.</p> <p>The link between reduction of speed limits and fewer and less severe accidents varies according to local conditions, specific scheme implemented and accident records. Accepting this, any reductions in speeds are going to benefit certain age groups – specifically children, younger adults and much older elderly people. All of which statistically are more prone to accidents. Disabled people are likely to be more seriously affected by an accident and any reduction in the likelihood of an accident will be a benefit. Lower speed limits will also help pregnant women and children with their parents/guardians feel safer on traffic calmed roads, so a Pregnancy and Maternity benefit applies.</p> <p>Lower speeds limits, with motor traffic less dominant on roads will encourage active travel -with benefits based on the profile of people that already walk and cycle. A BCP Council travel survey (October 2018-January 2019) showed that more men, middle aged people, people that do not have a disability, white other (in terms of race) and non-Christians are more likely to cycle. Much younger, much older age groups, people without a disability and LGBT+ (non-heterosexual people) are more likely to walk. As a result, creating a better environment for walking and cycling through reducing the speed of traffic is likely to be seen as positive to the groups above. Women according to the same survey are less likely to cycle, citing concerns about personal safety. Reducing speed limits may alleviate some of these concerns and encourage women and others put off due to safety concerns to now consider cycling.</p> <p>Negative impacts from additional journey times through additional costs potentially affect all, whether they drive or not as this affects transit costs. The BCP Council</p>
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		<p>travel survey showed that men, middle aged groups, people without a disability, white British people, heterosexuals and Christians were more likely to drive so they are likely to be proportionately impacted by any longer journey times. The profile of car passengers is also known with women and much younger age groups far more likely to undertake car journeys as passengers, so these groups will also be affected.</p> <p>The Measurement Framework for Equality and Human Rights (from the Human Rights Commission) has Health as one of its domains. Reducing the numbers and severity of accidents will contribute to this area, as well as benefits from healthier lifestyles resulting from more active travel.</p>
8.	Will the policy or service change affect any of these service users?	<p>Yes – the benefits and concerns outlined above will affect people that live and travel through the areas affected and also through related economic impacts and changes in accident profiles.</p> <p>The extent that people and organisations will be impacted will depend on the extent of any increase in the areas covered by a 20-mph limit. Targeted local schemes will mainly affect the immediate area; if the coverage of 20 mph is extended to all residential areas in BCP any impacts, both positive and negative will be more significant. At this stage this EIA can only cover general impacts as specific issues will arise from individual schemes which are not yet decided.</p>
9.	What are the benefits or positive impacts of the policy/service change on current or potential service users?	<p>Lower traffic speeds are likely to improve road safety and improve the road environment. This will reduce road casualties – notably in areas where there is a record of RTC's, but far less likely in locations where there is not a history of accidents. RTC's disproportionately impact the more vulnerable in society – the very young (children), younger, elderly and disabled people. Women who are pregnant and people with young children are also more vulnerable.</p> <p>As an example - in BCP the 2021 Road Safety Report cites the 16-25 yr age group are the most likely to be involved in a Killed or Seriously Injured - KSI Accident, at 27% of all such accidents– yet they form 12% of the total BCP population.</p> <p>Vulnerable Road Users are both more likely to be involved in an RTC and also more likely to be hurt more seriously and take longer to recover. Where the speed limit is reduced in an area prone to accidents a positive impact will result for those more vulnerable to accidents. As some evidence suggests, people - especially children who live in more deprived areas –</p>

		<p>are more prone to being involved in an RTC. Where a scheme is implemented in areas of higher social deprivation benefits are likely to be greater due to a higher accident rate. This is a positive for such areas and their residents.</p> <p>Where a reduced speed limit encourages greater take up of active travel some health benefits will result from higher levels of physical activity and wellbeing. Some groups notably those on lower incomes, who are less likely to have access to a car will see a positive impact from an environment that encourages sustainable travel. The 2018/19 BCP Travel survey showed a correlation between car ownership and deprivation – households in the lowest 10% according to the deprivation index had car ownership at 75% compared to 96% of households in the highest 10% - i.e. the most prosperous areas.</p> <p>The same BCP Travel survey asked for reasons that put people off cycling and walking. Personal safety was proportionately higher for women and for cycling - the under 35 age group. Where speed limits are reduced this could particularly encourage cycling for women and younger people and walking for women.</p> <p>The Department for Transport Road Casualties report 2018, estimated that the cost to society of RTC's was £11.8 billion. Implementing 20 mph areas where there is a record of accidents is likely to provide significant economic benefits. As RTC's impact the more vulnerable in society any means to reduce the numbers will also reduce impacts on relatives and households of these people, those likely to be closely connected to an individual more likely to have an accident could include – those who are a parent or have an elderly partner.</p>
10.	What are the negative impacts of the policy/service change on current or potential service users?	<p>Any significant increase in the coverage of roads restricted to 20mph will have economic costs through longer journey times, noting the RAC point that the mobility and productivity of road users' needs taking into account. These economic costs will affect some groups to a greater extent. Some disabled people rely on their motor vehicle for all their mobility needs as they are unable to use other means of transport. People with young children (pregnancy and maternity) may view that a car is the only practical means of transport for their circumstances. Care workers usually very much rely on cars to enable necessary visits. People on lower incomes (socio-economic status) will be disproportionately impacted by increased costs arising from longer journeys. Current cost of living</p>

		<p>pressures will heighten any increased costs resulting from implementing additional 20 mph locations.</p> <p>Introduction of 20-mph areas focused on residential streets is likely to displace traffic onto roads where higher speed limits remain. Predicting impact on the wider road network is uncertain, but increased congestion could result in impacts to those living on non-residential roads from higher traffic levels – noise and pollution. Those people are likely to be on lower incomes as prosperous residential areas are often away from main roads.</p> <p>People that use taxis may experience higher charges due to longer journey times resulting in higher fares and also by longer routes where a taxi avoids 20-mph zones – say due to traffic calming. The BCP Travel survey did not provide any equality information relative to taxi use, but some elderly and disabled people are likely to use taxis more than others.</p> <p>Where changes are made to road layouts studies have shown, that people react in different ways. A Transport for All study - 'Pave the Way' January 2021, covered the impact of Low Traffic Neighbourhoods – LTN's, on disabled people. It mentioned that 'Any change implemented which affects the movement of vehicles and pedestrians as well as flow of traffic will inevitably have some sort of impact on disabled people who feel the changes more strongly due to limited alternative options for travel'. The report also mentioned that change itself can be an access barrier. (Creating 20mph zones, especially those with physical traffic calming features are similar to LTN's)</p>
11.	Will the policy or service change affect employees?	Yes, particularly for employees with the characteristics highlighted as being impacted above. BCP Council employees, to different extents travel to, from work and for work purposes. Those who travel by car are more likely to view 20 mph areas as negative, alternatively a better environment for walking, cycling and wheeling provided through additional 20 mph area will be more positive for employees that travel as such.
12.	Will the policy or service change affect the wider community?	Yes. As described in the benefits and disbenefits above.
13.	What mitigating actions are planned or already in place for those negatively affected by	This screening tool forms part of a BCP Council Cabinet Report to provide information for options in relation to 20 mph roads/zones. Only general impacts are able to be considered at this point. If a different approach from the existing policy is proposed,

	<p>the policy/service change?</p>	<p>consultation will provide detail of different viewpoints and provide equality perspectives. Detail on mitigating actions will follow resulting from individual schemes; If a BCP wide 20 mph rollout is proposed, then equality issues raised in the consultation will be proportionately greater and need applicable mitigation.</p> <p>As a general point local and national transport policy is to encourage sustainable and active travel to reduce car use and provide viable options for people that do not have access to a car. Levels of car ownership result in congestion, pressure on parking spaces and car dependency. Investing in other means of transport and facilities that make active travel safer are a mitigating action which reduce some negative impacts on motorists of introducing new 20 mph areas.</p> <p>Parking pressures are high where vehicle ownership and available parking spaces are insufficient to accommodate the demand. As an alternative to car ownership and use, the Council is investing in arrangements and options that provide alternative transport choices such as facilities that make active travel safer and more attractive, bus subsidies, car share and Beryl Bikes.</p> <p>An area wide approach covering all of BCP will increase the scale of some impacts, but others will be reduced. A consistent approach will mean that impacts from traffic will not transfer to other residential roads as all areas will be covered by a 20-mph limit.</p>
14.	<p>Summary of Equality Implications:</p>	<p>The extent of equality implications from any changes to the existing council policy and then introduction of additional locations will depend on the scale, nature of and areas/places considered. At this stage general impacts can be identified but the degree to how people are affected will be proportionate to the level of change from the current position.</p> <p>The Road Safety community generally accepts that reduction of speed limits will reduce the number of and severity of road traffic accidents. Some protected groups are more likely to be involved in and have more severe accidents. Further inequalities arise from recovery times and the health impacts of accidents. Research has shown age and disability impacts with children, much younger adults, older people and disabled people disproportionately negatively impacted. People covered by pregnancy and maternity are also affected. The costs to society of road traffic accidents needs consideration as a counterpoint to the additional</p>

	<p>time costs through slower residential driving speeds when 20-mph areas are introduced.</p> <p>Reduction of accidents is the main reason for introducing 20mph areas, but a more equal highway environment, reducing the dominance of motor vehicles, improves conditions for active travel. This is of benefit for people that regularly walk, wheel or cycle. This also could encourage under-represented groups to travel differently as some specific concerns raised to a higher extent by these groups are addressed. By enabling safer travel choices there will be a particular positive impact on lower income households who are less likely to have access to a car.</p> <p>Creating 20-mph zones prioritises decreasing accidents and reduction of the impact of motor traffic in neighbourhoods over personal mobility freedoms for drivers and passengers. Additional economic costs arise from longer journey times and any displacement of traffic will impact other areas where 20-mph zones are not implemented. (Unless all residential areas are covered which means speed limits are equal – eliminating time advantages by taking another route). The economic impact of any extent of 20-mph limits will affect all, but some groups who rely on cars or works vehicles will be particularly affected, including care workers, people that rely on taxis, some parents with young children and disabled people where the car is their only possible means of travel. The profile of people who proportionately drive more – men, middle aged groups, people without a disability, white British, heterosexuals and Christians will generally consider their freedoms associated with driving are being compromised, though individual views may vary.</p> <p>At this stage equality considerations are generic and to guide the high-level options for BCP future strategy in this area. Detailed and local impacts and mitigations to resolve concerns need to be evaluated at a later stage. The perspective is whether to prioritise reducing the number and severity of traffic accidents – which do negatively impact the more vulnerable in society to a higher extent. Or whether to highlight wider economic and liberty considerations which are likely to affect far more people but with a much lesser individual impact than that of a serious road accident.</p>
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Appendix D – Summary of Atkins Report

Key points from Atkins report 2018 are as follows:

- a. Based on 12 study areas of limit only 20mph schemes with a combined length of over 700km across England that had been implemented more than 3 years before the report was published (i.e. there is monitoring data) and where the median speed was 24mph or less prior to the change.
- b. The stated reasons for the scheme's introduction were:
 - i. Transport related (Casualty reduction, rat running, reduce negative impact of cars)
 - ii. Community or political reasons (Community concerns about speed, safety and the quality of the environment. Community pressure on the Council. Cllr led – seen as a low-cost solution.)
- iii. Health related (To encourage active travel and improve health and wellbeing)
- c. The study examined the level of support for 20mph (signed only) limits amongst different user groups through questionnaire surveys. This showed high levels of post implementation support amongst cyclists (81%), residents (75%), and non-resident drivers (66%); but less support amongst residents in neighbouring 30mph areas (44%) and opposition from motorcyclists (29% supportive, 47% unsupportive). There was limited call for the limit to be changed back to 30mph (12% support amongst residents and 21% amongst non-resident drivers).
- d. Overall support amongst residents increased after the implementation of the schemes (from +58% to +63%), suggesting that some pre-implementation concerns did not materialise or became more acceptable.
- e. The most common area of concern across all user groups considered was around compliance, with most focus groups and survey participants of the opinion that stronger enforcement measures are needed if 20mph limits are to be effective.
- f. The journey speed analysis showed that the median speed fell by 0.7mph in residential areas and 0.9mph in city centre areas.
- g. The study concluded that there was no measurable reduction in road casualties.
- h. There was some evidence of a small perceived or real reduction in the volume of vehicles using the roads.
- i. Journey times were found to have increased by approximately 4%.
- j. 5% of residents surveyed said they were walking more and 2% said they were cycling more.
- k. Local authorities have responded positively to revised guidelines on the setting of local speed limits (DfT Circular 01/2013), resulting in a substantial growth in signed only 20mph area-wide limits in recent years, covering larger areas and often entire urban areas. The majority of 20mph limits have been implemented on roads where the average speed prior to implementation was typically less than

24mph; and the case studies have generally been implemented on the basis that they should be self-enforcing, with no expectation of additional police enforcement - in line with DfT guidance.

A logic map approach, articulating the process by which the scheme is expected to deliver outcomes and wider impacts, can help identify the monitoring priorities. For example, where speed reduction is a key objective then data on observed speeds will be important; but where the scheme is focused on improving the attractiveness of the area for walking and cycling, then attitudinal surveys are arguably more informative.

Appendix E – Summary of PACTS Report

A more recent (2023) study carried out by the Parliamentary Advisory Council for Transport Safety (PACTS) together with an international team of road safety experts was funded by The Road Safety Trust.

The study considered examples from the UK, France, Germany, The Netherlands, Norway, Sweden and Switzerland. The report drew evidence from 24 previous studies in the UK.

It found great variability in the quality and amount of data available to enable objective findings to be drawn, however it did reach some useful overall conclusions.

In brief summary the PACTS report concluded:

- a) The use of 20mph speed limits can help support a Safe Systems approach to road casualty reduction.
- b) 20mph limit only schemes reduce speed by 1 to 2mph where speeds were approximately 25mph before, and 3 to 5mph where speeds were approximately 30mph before.
- c) 20mph limit only schemes reduce road casualties by 11%.
- d) 20mph zones reduce road casualties by 40%. (DfT suggests 60% in DfT Circular 01/2013)
- e) Speed plays an important role in delivering casualty reduction and increasing active travel.
- f) Traffic speeds of around 20mph also make walking and cycling more appealing – a crucial step towards the Government's desire that 50% of journeys will be walked or cycled by 2030.
- g) Compliance to 20mph limit only schemes is poor.
- h) The emergence and use of Intelligent Speed Assistance (ISA) is the most effective in-vehicle system for reducing speed in 20mph limit only areas.

- i) That public money spent on self-enforcing 20mph zones has substantially greater effects than when it is spent on just the signs and road markings of 20mph limits.
- j) It also refers to DfT guidance that states that there should be no expectation on the police to provide enforcement beyond their routine activity.

Appendix F – A Summary of What Some Other Authorities Have Implemented and Learnt.

Bristol: In 2012, Bristol City Council voted to introduce 20mph speed limits throughout the city. The 20mph speed limit was introduced in six phases between January 2014 and September 2015. The roll-out sought to improve health and well-being across the city, taking a holistic perspective as to how slower traffic speeds might impact on people's lives. In 2018 the council commissioned University West of England (UWE) to undertake an analysis of the 20mph roll out project⁶ and the conclusions included the following:

- This study has found statistically significant reductions in average traffic speeds of 2.7mph across the city of Bristol, following the introduction of 20mph speed limits. This is a larger reduction than seen in previous evaluations in other cities, but may reflect the study methodology.
- Over the period of the 20mph limit implementation, there has been a reduction in the number of fatal, serious and slight injuries from road traffic collisions, equating to estimated cost savings of over £15 million per year.
- Although there is still majority support for 20mph speed limits in Bristol, there remains concern about compliance and behaviour of other drivers.
- Walking and cycling across Bristol has increased, both among children travelling to school and adults travelling to work.
- The introduction of 20mph speed limits in Bristol offers a model for other towns and cities across the UK, who are seeking to reduce traffic speeds, cut road traffic casualties, and promote community health and well-being through road danger reduction.

Cornwall: Has stated intention to reduce the speed limit on residential and urban roads to 20mph. This is being delivered on the basis of an area-by-area approach following consultation with communities, with priority being given to Urban areas with high pedestrian and cyclist movements, including areas around schools, shops, markets, playgrounds. It introduced 3 pilot areas in 2022 in Camelford, Falmouth and Penryn. It has set out a forward programme from 2023/24 to 2026/27 to deliver 30 more areas across these years.

⁶ <https://uwe-repository.worktribe.com/output/875541>

Oxfordshire: Oxfordshire approved expenditure of up to £8m to implement 20mph schemes and has stated an intent to bring in 20mph areas to 234 of their 310 parishes. In December 2023 it announced the first 18 areas. It is considering 20mph in areas that must meet the following criteria:

- be supported by the local town or parish council **and** the local County Councillors **and**
- be within the extent of the built-up environment of the town or village where vulnerable road users and vehicles mix in a frequent and planned manner **and**
- have an existing speed limit of no greater than 40mph **and**
- be in an environment that explains and justifies a lower speed limit to the driver.

Dorset: Dorset has allocated annual provision of £75k from LTP capital programme to implement 20mph schemes in areas that meet the following criteria:

- In towns or villages where there is a depth of residential development and high levels of pedestrian and cycle movement or there is a potential for high levels of pedestrian and cycle movement if a 20mph scheme was introduced; they should not be on roads where the movement of motor vehicles is the primary function.
- Where existing mean speeds provide a realistic opportunity for compliance: DfT guidance states that 20mph schemes should be self-enforcing. If the mean speed is already at or below 24mph, introducing a 20mph speed limit through signing alone is likely to lead to general compliance with the new speed limit. Mean speeds above 24mph are likely to require additional traffic management or enforcement measures.
- Conservation areas.

Their intent is to focus on areas where there is significant Cllr and public support.

Wales: The Welsh Government took a decision to roll 20mph speed limit only schemes on residential roads nationally on 17 September 2023 at a reported cost of around £32.5m. The Government report concluded the following:

- Improved road safety resulting from a reduction in average speeds could result in a positive financial return to government from the policy over 30 years of around £25 million, due to cost savings associated with reduced emergency services and hospital treatment, with savings of ca. £58 million.
- The policy could also create substantial wider economic benefits due to improved road safety (£1.4bn), environmental and health benefits from more active travel (£0.5bn) and further heretofore unquantified benefits from more vibrant and connected local economies.

- However, set against this is the potential for dis-benefits to businesses and households from increased journey times. Based on the current assessment, when included, the value of such dis-benefits (£6.4bn) could outweigh the other positive economic benefits, though the range around those journey time disbenefits is wide (£2.8bn-£8.9bn) and around three quarters of those disbenefits are likely to be attributable to trips with journey time impacts of less than 2 minutes.
- Overall an indicative central estimate of the monetised net present value of the policy is calculated to be a negative £4.54bn.
- Excluding the journey time disbenefits the net present value of the policy is a positive £1.9bn.
- In real terms the central estimate (including journey time benefits) of the policy trades off a journey time cost of 1 min per journey against an average annual reduction of 9 fatalities, 98 serious injuries and 219 slight injuries, and an average annual increase in cycling and walking trips of around 11 million.
- It is important to note that there are a number of wider benefits such as reduced noise pollution, broader impacts health impacts from active travel, increased social interactions, retail spending and land values that are not included in this calculation. Moreover the increases in individuals' travel time are likely to be small and so there is uncertainty about the opportunity cost of that time.
- The exceptions process creates scope to further reduce the impact on journey times while maintaining safety benefits.
- Once the 20mph policy has been fully implemented, it is expected that a wider range of data will become available through monitoring activities. This may enable analysis of the policy's broader impacts to be undertaken, which could improve the overall assessment of economic benefits delivered by the policy.