

Safety Sustainability and Human Resource Panel



Date: 13 September 2023

Item: Road Safety – 20mph in London

This paper will be considered in public

1 Summary

- 1.1 This paper explains how 20mph is proven to deliver safety benefits and is a core part of Vision Zero. Reducing speed limits where appropriate across London is one of the key ways we can achieve our 2041 target. It also improves the quality of life for residents, enhances communities and will especially benefit demographic groups within London who are at higher risk of injury. Not every road is suitable for 20mph, but our evidence led methodology has informed how and where we have prioritised our lowering speed limits programme.
- 1.2 The paper highlights the success of delivery of new 20mph on the TfL Road Network and engagement with boroughs to deliver 20mph on their roads, all supported by enforcement, behaviour change and marketing. It explains our recent behaviour change and marketing campaign approaches.
- 1.3 The paper highlights the current challenges to delivery of 20mph and the challenge of policy consistency across London.

2 Recommendation

- 2.1 **The Panel is asked to note the paper.**

3 Background

- 3.1 Our goal, as set out in the Mayor's Transport Strategy (MTS), is to eliminate all deaths and serious injuries on the transport network, including road collisions, by 2041. We have an interim target to achieve a 70 per cent reduction in people being killed or seriously injured by 2030, based on 2010-2014 levels. No death on London's roads is acceptable or inevitable. Road collisions, while they are unintended, are the result of choices made by individuals, organisations and society.
- 3.2 Lowering speeds and implementing lower 20mph limits is a crucial part of our Vision Zero approach in London. This is based on the well-established Safe System approach to reducing risk; in which reducing speeds is a key enabling activity. This paper responds to the request from the Board for an update on London's approach and progress to lowering speeds and implementing 20mph limits.
- 3.3 Evidence is set out in this paper on the benefits of lowering speeds and the rollout of the programme on our roads and borough policy. It also sets out how we coordinate and provide data and marketing tools, provide funding for 20mph and advocate for safer speeds to local and National Government.

4 Progress to reducing injuries on London's roads resulting from excessive speed

Evidence that supports action to manage vehicle speeds

- 4.1 The severity of injury from a collision increases disproportionately as vehicle speed increases. If a person walking is hit by a vehicle travelling at 30mph they are five times more likely to be killed or seriously injured than if they were hit at 20mph.
- 4.2 As well as influencing the severity of a collision, the speed at which people are driving or riding impacts the likelihood of a collision occurring in the first place. The faster a person is driving, the less time they have to react to avoid a collision. Based on a typical reaction time of 0.67 seconds, a car travelling at 20mph would be able to stop three car lengths sooner than a car travelling at 30mph¹. This is why 20mph is widely regarded as a safe speed on roads with possible conflicts between motor vehicles and pedestrians, cyclists or other vulnerable road users. This view is backed by a number of international bodies, including the Organisation for Economic Cooperation² and Development and the World Health Organization³.
- 4.3 Lowering traffic speeds where vehicles and people are likely to mix reduces the likelihood and severity of collisions. It also makes our streets less dominated by motor vehicles, more attractive for walking and cycling and reduces noise, pollution and carbon emissions. These align with other MTS goals.
- 4.4 Given the nature of past implementation of 20mph speed limits in London (localised, incremental) it is hard to evaluate any one borough scheme. However, academic consensus suggests that a fall in average speeds of 1mph has been shown to result in a fall in collision rates of approximately six per cent on urban main roads and residential roads with low mean speeds⁴.
- 4.5 A Department for Transport (DfT) study⁵ of 20mph limits across the UK found average speeds fell by up to 2.7mph in Bristol after the new speed limit was introduced, leading to estimated annual prevention of five fatalities, six serious injuries and 160 slight injuries, totalling £15.3m worth of casualty savings per year. In context, the size and population of Bristol is roughly equivalent to the London Borough of Bromley.
- 4.6 Reducing speeds can also improve the quality of life for residents and enhance communities⁶. Reducing speed increases physical activity and makes our streets feel safer – particularly for children. Noise pollution can reduce because of lower speeds, and community cohesion has been shown to increase⁷. Lowering speeds in an urban environment has been found to have no net negative impact on exhaust emissions, and resulted in clear benefits to driving style and associated particulate emissions⁸.
- 4.7 Our recent report⁹ into the inequalities of road risk showed that deprivation, gender, age and mode of transport all have a significant impact on the risk of being killed or

¹ Department for Transport, Rule 126, The Highway Code, 2015. www.gov.uk/browse/driving/highway-coderoad-safety

² <https://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf>

³ <https://www.who.int/news/item/22-03-2021-campaign-launched-to-make-30-km-h-streets-the-norm-for-cities-worldwide>

⁴ Steer Davies Gleave, Research into the impacts of 20mph speed limits and zones, SDG: London, 2014

⁵ Department for Transport. 20mph research study - process and impact evaluation: headline report, DfT, 2018

⁶ Go slow: an umbrella review of the effects of 20 mph zones and limits on health and health inequalities. Cairns et al (2011)

⁷ <https://content.tfl.gov.uk/speed-emissions-and-health.pdf>

⁸ An evaluation of the estimated impacts on vehicle emissions of a 20mph speed restriction in central London

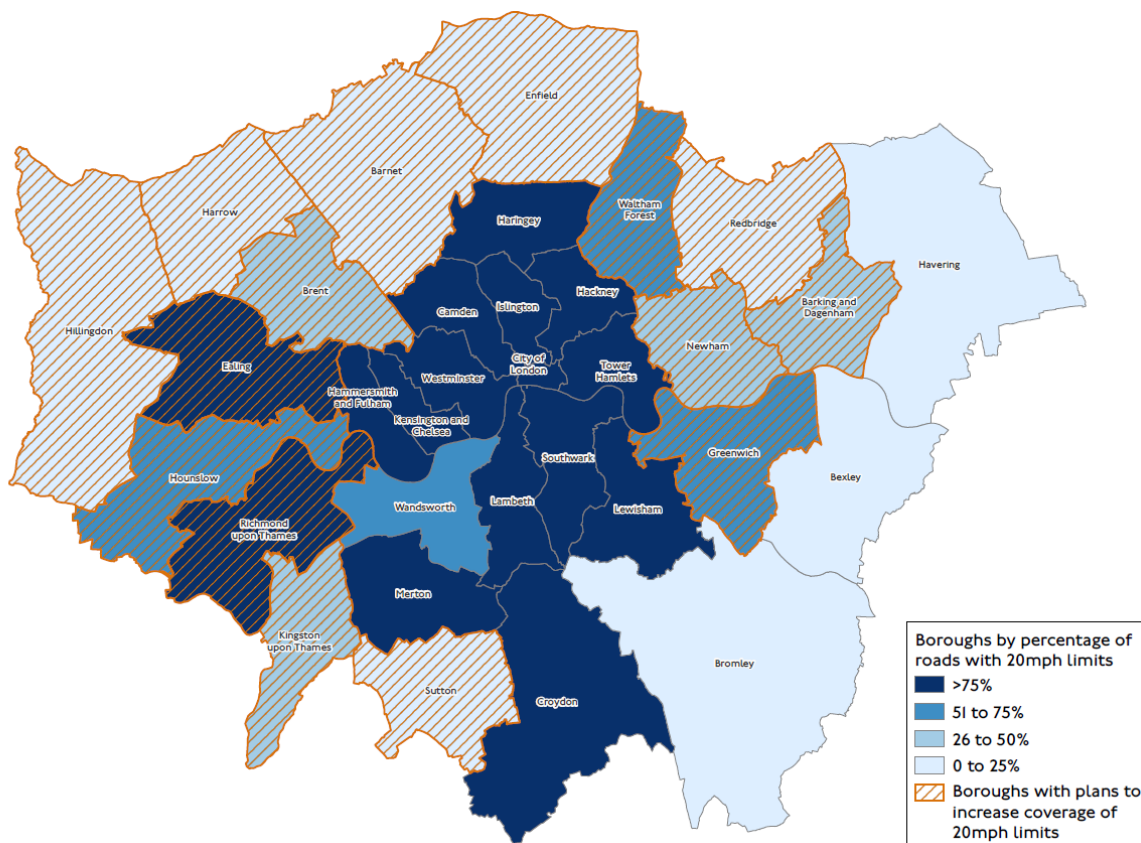
⁹ <https://content.tfl.gov.uk/inequalities-in-road-danger-in-london-2017-2021.pdf>

seriously injured in a collision. By making sure our roads have safer speeds, and by reducing killed or serious injuries (KSIs) linked to excess speed, we will benefit groups of people with a higher risk of injury.

Speed limits in London

- 4.8 Currently, 51 per cent of all London's roads have a 20mph speed limit. This can be further broken down by 52 per cent of borough roads and 16 per cent of the TfL Road Network.
- 4.9 There are 15 boroughs where over 75 per cent of their roads have a 20mph limit, mostly located in inner London. There are 20 boroughs (including the City of London) which have stated their intention to introduce 20mph limits across all non strategic roads. A significant number are expanding 20mph limits in their Local Implementation Plan (LIP) bids (see Figure 1 below). Taken as a whole, this means that London will continue to see an expansion in 20mph roads, particularly in the outer boroughs. A detailed breakdown of coverage of 20mph in boroughs, split by our roads and borough roads is set out in Appendix 1.

Figure 1: Boroughs by percentage of roads with 20mph limits



- 4.10 We have refocused engagement with boroughs with low coverage of 20mph, proactively making the case at officer level, supported by local evidence and stakeholders at City Hall at Borough Cabinet level. In 2023 there was a step change in the number of 20mph bids as part of the 2023 LIP process, and more boroughs committing to default 20mph.

Speed limits on the TfL Road Network

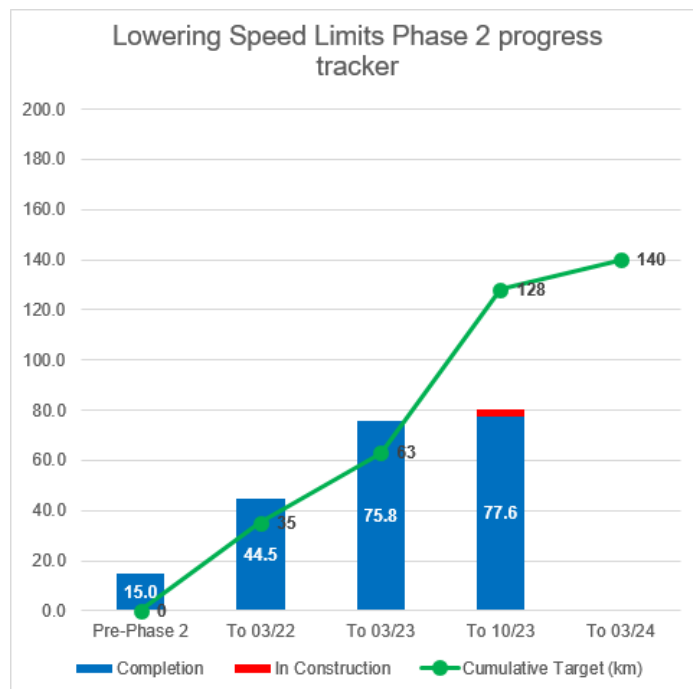
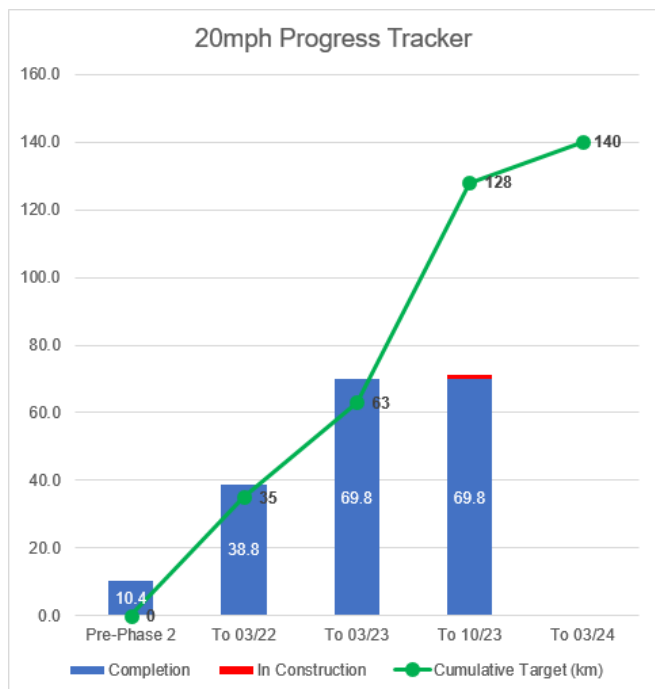
- 4.11 As of September 2023, 16 per cent of our roads have a 20mph speed limit. By the end of 2024, this proportion will increase slightly as a result of our Lowering Speeds Limits

Programme, meaning that inner London boroughs such as Islington will have nearly all borough and our managed roads with a 20mph limit.

- 4.12 Not every road is suitable for 20mph. On our roads, analysis was undertaken to understand roads which were most appropriate for 20mph and lower speed limits. The TfL Road Network was plotted against each segment's function of moving vehicles vs its function of a place and pedestrian movement – see Appendix 2. A methodology considering potential harm, the anticipated function of the road and the predicted volume of active travel was balanced against our network management duties to form our current Lowering Speed Limits Programme (Vision Zero Action Plan Action 1, 2018).
- 4.13 Due to current average speeds, it is unlikely that the lowering of speed limits from 30mph to 20mph will change existing journey times during the day. During off-peak periods, including overnight, there may be a slight increase in journey times, however research into the impacts of 20mph by Steer Davies Gleave¹⁰ suggests that introducing 20mph speed limits has a negligible impact on journey times, given that overall journey times are largely dictated by junction delays and not vehicle speeds.
- 4.14 The methodology for the Lowering Speed Limits Programme identified and considered the following considerations to our existing network:
- (a) Road danger – accounting for the likelihood of killed or seriously injured collisions;
 - (b) Aspirational strategic function – accounting for the future balance between place, walking and cycling movement versus that of people and goods in motorised vehicles;
 - (c) Validating the initial locations – highlighting key future network plans, and sections connecting high priority areas;
 - (d) Assess operational challenges – identifying locations where compliance with a lowered speed limit may affect bus operations, network management and scale of intervention required; and
 - (e) Identifying a range of options using different data thresholds to address different levels of ambition.
- 4.15 As part of this plan, in 2020 we lowered speed limits in central London on 9km of our roads and are working to lower speeds on a further 140km of our roads by May 2024 in inner and outer London. By 2024 220km of our roads will have a 20mph speed limit, more than quadrupling the length of 20mph limit since the start of 2020. A map of this programme is set out in Appendix 3.
- 4.16 Our progress is shown below towards a cumulative target of reducing speeds across the TfL Road Network (see Figure 2 and 3 below). We are currently ahead of our delivery target across the programme.

¹⁰ <https://www.roadsafetyknowledgecentre.org.uk/downloads/20mph-reportv1.0-FINAL.pdf>

Figure 2 and Figure 3: 20mph progress tracker and the Lowering Speed Limits Programme Phase 2 progress tracker (40, 30 and 20mph which forms our 140km of additional lowered speed limit target)



4.17 Interim monitoring post implementation of 20mph in central London found a 36 per cent reduction in collisions involving vulnerable road users and a 25 per cent decrease in collisions resulting in death or serious injury since the introduction of the lower speed limits¹¹.

Our approach to ensuring successful compliance: behaviour change and enforcement

4.18 More than 90 per cent of collisions on London’s roads are linked to unsafe behaviours and 87 per cent of Londoners believe that collisions on the road are inevitable. Our behaviour change campaigns aim to change drivers’ speeding habits. Research shows that the emotional impact of our advertising performed above industry average.

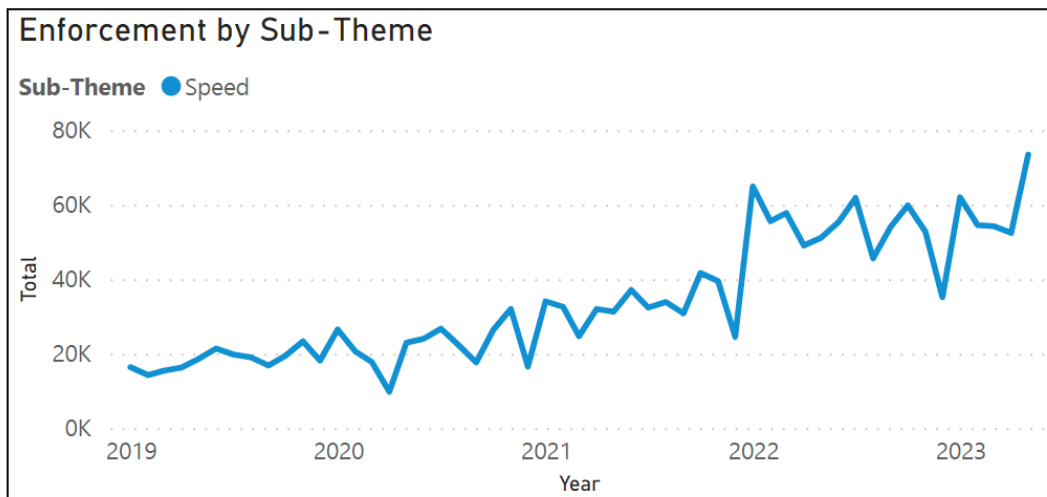
4.19 In July 2023 we launched a marketing campaign highlighting the rollout of lower speed limits and explaining the rationale and benefits. In September 2023 targeted behavioural marketing will challenge ‘complacent speeders’ who believe that exceeding the limit by a few miles an hour is acceptable.

4.20 Enforcement has a critical role in enforcing legal speed limits. Speed enforcement in London is led by the police using a combination of on-street officers, fixed-site and mobile cameras and mobile speed enforcement vans. Most speed enforcement is through mobile and fixed cameras.

4.21 We have been working with the Metropolitan Police Service (MPS) to increase the level of police enforcement to tackle speeding and the harm it causes. In 2022/23, over 600,000 offences were captured (see Figure 4 below). By 2024/25 we will have significantly enhanced police capacity to enforce up to one million offences per year.

¹¹ <https://tfl.gov.uk/corporate/safety-and-security/road-safety/safe-speeds>

Figure 4: Enforcement captured through speed cameras from 2019 to present



- 4.22 Community Roadwatch and Junior Roadwatch schemes allow residents to work side-by-side with local police teams, using speed detection equipment to identify speeding vehicles in their communities. Warning letters are issued to speeding drivers and the data informs future police action and deployments. A fifth of Londoners are aware of Community Roadwatch, and more than half of those think it is effective, rising to almost three quarters among those who have children in the household.
- 4.23 Despite a rise in enforcement, there are concerns compliance continues to be poor in some areas. In 2022 the London Borough of Wandsworth piloted civil speed enforcement cameras on roads with a 20mph limit where residents often complain about speeding. The pilot scheme issued Penalty Charge Notices to offenders, with no points added to their licences. This pilot scheme was deemed unlawful by the DfT, and the trial suspended. At present there is no lawful method of civil speed enforcement. We continue to maintain active dialogue with London Councils and key boroughs.

Challenges

- 4.24 Introducing 20mph speed limits can face a range of stakeholder and technical challenges. While both our own studies and those of the the DfT show that 20mph is popular among the public, with support increasing after implementation, there can be local resistance to changes on the road network.
- 4.25 The DfT, MPS and academic literature suggest that roads need to 'look and feel' like the speed limit that are set so road speeds are 'self-enforcing'. There is more we can do to investigate a London approach for strategic roads that 'look and feel' 20mph, given that physical measures on high capacity roads can be expensive and complex to deliver.

5 How we are supporting boroughs and leading London's 20mph approach

- 5.1 Boroughs control 95 per cent of London's roads and are key to achieving Vision Zero. A consistent speed policy enhances compliance and ensures equity, with all Londoners benefiting from reduced road risk no matter where they live.
- 5.2 Key to influencing boroughs is the Local Implementation Plan (LIP) process, which enables the boroughs to deliver the Mayor's Transport Strategy on their roads. We support this with direct political and officer level engagement, providing technical

guidance and assisting them with the development and delivery of their LIPs. Additionally, we take on a pivotal role in implementing changes on our own roads, and advocate for policy change through engagement with Government. Through this approach, we lead the charge towards a safer and more sustainable transportation system.

- 5.3 To achieve Vision Zero it is vital for each borough to have an equivalent Vision Zero Action programme to ours, placing safe speeds at its core. Boroughs are uniquely able to mobilise schools, health agencies, transport and the local community to bring about cultural change in the local area to support and complement the introduction of safer speeds.
- 5.4 We continuously engage with boroughs on matters related to road safety and support national campaigns such as road safety week. In September we are hosting a Vision Zero summit to celebrate five years since the launch of our Action Plan.

Funding

- 5.5 We fund boroughs through the LIP process, and recently provided £2.45m to fund expansion of 20mph in many outer London boroughs in 2023/24. Future LIP bidding guidance could put more emphasis on expanding 20mph, particularly in boroughs with less coverage.
- 5.6 Looking beyond 2024, we need to make sure that we have a continued safer speed programme. Some roads on the TfL Road Network which were not prioritised during our Phase 1 and Phase 2 safer speed programme nonetheless carry risk that can be addressed through an expanded programme.
- 5.7 As more boroughs aim to introduce 20mph across all of their roads, future phases of the lowering speeds programme should aim to address consistency issues in certain areas of London and consider future borough plans for reducing all of their roads to a default 20mph limit.

Data dashboards and toolkits

- 5.8 We publish interactive dashboards that let members of the public, including borough officers, explore the location and details of published collisions in London, and enforcement outputs from action taken by the police against traffic offences committed in London. To support their use, we have provided training to over 200 councillors and officers. This is in addition to our annual road safety data factsheet, which tracks London's progress against our Vision Zero targets and highlights speed related collisions.
- 5.9 We are facilitating the exchange of insights and experiences among boroughs' experience of 20mph rollout. Different approaches to planning, delivery and analysis means best practice is continuously being shared. This is in addition to the Lower speed toolkit that we launched in 2019¹² which provides guidance on street design to support 20mph.
- 5.10 We have recently updated a London-wide digital speed map on Surface Playbook and are looking at ways to make combined collisions data sets accessible to the public.

¹² <https://actionvisionzero.org/wp-content/uploads/2019/09/tfl-lowerspeedstoolkitsep19.pdf>

Campaign/Marketing toolkits

- 5.11 This year, we are launching two flexible marketing campaigns to encourage safer speeds and behaviours. These campaigns can be customised by boroughs and stakeholders to suit their local requirements, ensuring a uniform approach to speed reduction across London under our guidance. Through shared assets, our collaborative strategy involves distributing marketing materials and toolkits to Vision Zero stakeholders and boroughs, promoting wider adoption of road safety messages, and allowing for personalisation within boroughs' social media or publicity networks.
- 5.12 Through our stakeholder engagement teams we bring together a broad range of stakeholders interested in safer speeds. In future, there is an opportunity to broaden the coalition of voices including the NHS, local schools and community groups to form a powerful voice to support change.

Policy

- 5.13 We have actively discussed the importance of lower, safer speed limits with national government, London Assembly members and MPs. We will continue to advocate for a default 20mph speed limit in urban areas, similar to Wales and will renew our ask to Government to introduce the General Safety Regulations in full, which would mandate a form of Intelligent Speed Assistance on all new vehicles, similar to the technology introduced as part of our Bus Safety Standard and recently introduced on our fleet vehicles.

List of appendices to this report:

Appendix 1: The proportion of roads with 20mph on the TfL Road Network and boroughs, by London Borough

Appendix 2: Framework for the TfL Road Network Lowering Speed Programme

Appendix 3: Map of the Prioritised Lowering Speeds Programme on the TfL Road Network

List of Background Papers:

None

Contact: Lilli Matson, Chief Safety, Health and Environment Officer
Email: LilliMatson@tfl.gov.uk

Appendix 1

Proportion of roads with 20mph on the TfL Road Network and boroughs, by London borough

Borough	2023	2023	2023
	% 20mph TLRN	% 20mph Boro	% 20mph All Roads*
Barking and Dagenham	0.0	27.4	26.4
Barnet	0.0	4.9	4.6
Bexley	0.0	9.6	9.4
Brent	0.0	45.1	44.1
Bromley	0.0	4.9	4.8
Camden	90.7	100.0	95.9
City of London	100.0	100.0	100.0
Croydon	7.7	82.3	79.5
Ealing	0.0	88.2	83.8
Enfield	0.0	21.1	20.2
Greenwich	0.0	62.0	57.2
Hackney	81.0	100.0	96.3
Hammersmith and Fulham	0.0	81.2	77.6
Haringey	50.9	93.8	92.3
Harrow	0.0	24.9	24.9
Havering	0.0	9.9	9.4
Hillingdon	0.0	8.0	7.7
Hounslow	0.0	59.8	53.9
Islington	93.7	100.0	97.9
Kensington and Chelsea	3.5	100.0	91.0
Kingston Upon Thames	0.0	42.7	39.7
Lambeth	23.3	100.0	84.0
Lewisham	17.6	100.0	90.7
Merton	1.8	97.8	93.9
Newham	0.0	40.9	38.7
Redbridge	0.0	14.8	13.9
Richmond Upon Thames	0.6	100.0	91.5
Southwark	44.6	100.0	92.8
Sutton	0.0	25.5	24.4
Tower Hamlets	37.2	100.0	86.7
Waltham Forest	0.0	77.8	75.0
Wandsworth	11.9	80.8	74.5
Westminster	85.3	100.0	97.4
TOTAL	16.0	52.7	50.8

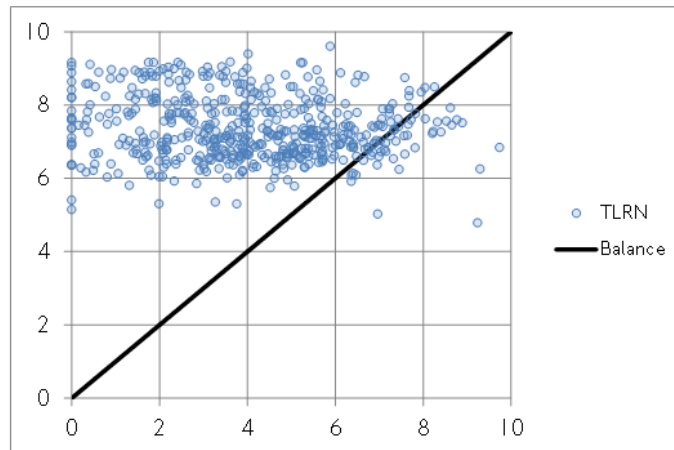
*Roads that have speed limits

Appendix 2

Lowering Speed Programme – Highlighting the framework used to start determining roads suitable for 20mph

Strategic function (TLRN)

Vehicular people movement



Framework used in helping
determine existing 20 mph sites

Place and pedestrian movement

Appendix 3

Prioritised Lowering Speeds Programme on the TfL Road Network map – Map of the programme

