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Reconnecting Place and Mobility

Placemaking to facilitate walking and cycling for all

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Since the 1940s we have become dependent on the private motor vehicle. Despite not every household having access to a vehicle, our cities and towns have been designed primarily for this mode. Over the decades, transport policy has tended to separate placemaking and mobility as being two independent elements within urban planning.

However, if we are to create a society in which all people thrive, and bring about environmental, health, social and economic benefits, we must recognise place and mobility as being inextricably linked.

This has come into sharp focus recently with the Covid-19 pandemic.

Globally, there has been a renewed focus on the relationship between transport, places, safety and health, with many governments and local authorities fast tracking the reallocation of space from cars to people. Cities such as Bogotá, Berlin, Paris, Auckland and Manchester are the forefront of this essential revolution.

This article discusses evidence for walking and cycling, best practice principles, and case studies, which are applicable both during this emergency and as we emerge into a new normal that works for all.

Places for cars not people

The distances people need to travel have increased as our cities have been planned around car access. This has caused a reduction in walking and cycling, and greater inequality in accessing public transport. 62 percent of all trips made are by car, either as driver or passenger. Sixty eight percent of these trips were under five miles, and 23 percent of trips were under one mile.¹ These are distances which theoretically can be made by walking, cycling or a mixture of these and public transport.

Designing for walking and cycling creates opportunities for journeys of 0-5 miles to be made by foot or bicycle. For example, on average it only takes 20 minutes to walk one mile, or to cycle five miles. It is also important to acknowledge that car journeys are necessary for certain groups of people and for different purposes. However, the majority of local trips need to partially or completely switch to sustainable modes.

The following are some of the key challenges we must address.



Transport inequality

There are many examples, even in new housing developments, where local authority policies stipulate minimum parking levels greater than one per household, unless in urban locations. The National Planning Policy also discourages maximum car parking standards.²

Car centric policies negatively affect everyone but have a disproportionate impact on the most vulnerable within our society. For some owning a car locks them into transport poverty and the lack of alternative options exacerbates the negative impacts discussed and reduces liveability.

These places, often low density suburban neighbourhoods, lack the basic walking and cycling infrastructure to access services, employment, education, and public transport connections. Pedestrians and those riding bicycles face considerable risks to safety – currently there are 1.35m deaths a year globally due to dangerous speeds and poor driving. Of this figure more than half are pedestrians, cyclists and motorcyclists, with road traffic injuries being the leading cause of death for children and young adults aged 5-29.³

The case for shifting modes

Despite these negative impacts, we continue to design places which rely heavily on cars for everyday local journeys. However, recent studies carried out by Sustrans demonstrate a demand from the public for increased space and quality of active travel infrastructure.⁷ Shifting local journeys from car to walking and cycling would bring transformative health^{8,9}, social^{10,11}, economic^{12,13} and environmental benefits.¹⁴ So how can we plan and design places which enable everyone, to walk and cycle as their first choice for local journeys?



Sustrans' own research shows that children in Scotland's poorest areas are three times as likely to be injured by road traffic as those in the least deprived areas.⁴ Transport is also the biggest contributor to greenhouse gas emissions.⁵ Nearly half of London's most deprived neighbourhoods exceeded EU nitrogen dioxide (NO₂) limits in 2017 compared with two percent of its wealthiest areas, despite car ownership levels usually being lower in low income neighbourhoods.⁶



Trip chains and route planning

Not all trips are A to B. In the UK only 16 percent of personal journeys are commuter trips, the remainder are 'trip chains' combining multiple destinations along the way. For instance, dropping children off at school on the way to work, and travelling home via the shops.¹⁵ There are a range of practical and policy factors which influence travel mode choice for trip chains. To plan and design an appropriate network we must consider the distances which people have to travel, and their reasons for travel.

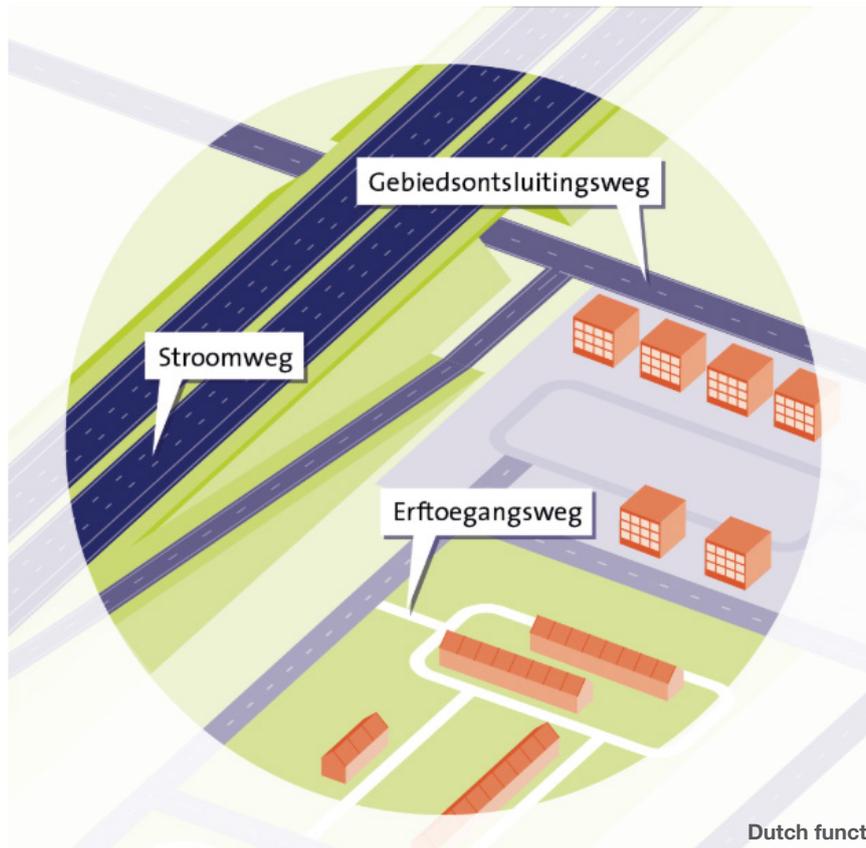
Planning a network needs to take into consideration all journeys not just commuters. Neighbourhood links need to safely connect homes to local services and public transport links.

Route classification

The Dutch model, Duurzaam Veilig¹⁶, where streets are unambiguously classified – and residential streets are not used as through routes – offers a three tier hierarchy of streets:

- 1 Residential 'access' streets where 'car is guest' and 'rat running' is designed out
- 2 'Distributor roads' or busier streets with mixed traffic where bespoke walking and cycling infrastructure is required
- 3 'Through' roads like motorways or busy trunk roads where motor traffic flow is prioritised.

In the UK this distinction is less clear. As a result, the car is king for local journeys as maximum permeability for drivers is prioritised on all street types. Many residential streets are classified as arterial, rat running is normalised, and there is a lack of appropriate walking and cycling infrastructure on mixed traffic streets.



Safety

Safety is the single largest barrier to more people cycling¹⁷, and this is accentuated for women, older people, disabled people, ethnic minority communities and individuals from lower socioeconomic backgrounds.

An estimated 70 percent of the population can face systemic barriers to cycling, which shape and often limit their mobility, life opportunities and independence.¹⁸

Safety for walking and cycling, in relation to the Dutch functional street hierarchy, means prioritising space away from motor vehicles, and separating pedestrians and cyclists from each other to varying degrees depending on the street type. For residential streets, modal filters, bus gates, and other 'low traffic neighbourhood' interventions¹⁹, reduce traffic volumes and speeds to allow cycling on the carriageway to become an option. On access / arterial roads, a dedicated network of space that is either kerb or grade separated, is crucial to protect those cycling from vehicular traffic, as well as separating pedestrians from bikes.

This design principle of creating protected cycling infrastructure has long been practiced around the world. Dedicated space for walking and cycling makes these modes attractive and safe for all ages and abilities, making local journeys by walking and cycling an option for most people. Crucially, it provides the required safety for the most vulnerable and least able to travel more easily by foot or by bike.

Integration

The integration of other modes and the use of technology to do this effectively is key to facilitating walking and cycling, particularly where people are making trip chains. For instance, lockers and secure cycle parking at railway and bus stations, workplaces, shops and schools, the ability to carry bikes on public transport, solar charging for e-bikes and scooters at public transport hubs, and contactless multi modal travel cards which cover bike hire (including electric and cargo).



In 2019, UK city regions and local authorities, including Norwich and Greater Manchester Combined Authority, were shortlisted for Future Mobility Zones funding, a £90m pot of capital funding available via the Department for Transport's £1.2bn Transforming Cities Fund.

Plans include micro mobility solutions (electric scooters / ebikes), autonomous shuttles, smart transport network management and mobility as a service platforms.²⁰



Place

As well as planning and designing safe and attractive active travel infrastructure, the design of the built environment around it must also make people feel comfortable and provide things to see and do along the way, especially for children and young people.²¹ Integral to this are mixed use areas so that a range of amenities are easily accessible by walking or cycling. Sustrans has recently developed the 20 minute neighbourhood concept²², in which residents are within a 20 minute walk of their everyday services and needs.

In addition to connecting into centres, these neighbourhoods must be linked to each other to increase accessibility and guard against sprawl. A mix of uses at different times of day and night, for example residential and retail, also increases natural surveillance, safety and vibrancy. Places which respond to local character and townscape often include high quality animated public spaces, as well as parks and street trees, landmarks and artwork. All of these elements provide the richness and a sense of place that is necessary to encourage increased levels of walking and cycling. Engagement and ongoing feedback with the local community is vital.



A holistic approach

To create these places, a cross discipline, holistic approach to planning and design is required. We must find new ways to integrate expertise in transport, placemaking, health, housing, economic development and social inclusion when creating or adapting places. There could be opportunities to develop skills in house in practices, or for organisations such as Sustrans to be involved in design workshops or delivering continuous professional development.

Given the lack of local authority resources, there will be a trend to rely more heavily on cross sector forums and input from specialist groups (eg access panels, cycling campaign groups). It is crucial to engage with these groups and with local people at the early stages of a project.



Policy and funding

Ambitious interventions need political support and there should be radical strategic transport planning at all scales. Lots of cities are declaring a climate emergency and have policies to promote walking and cycling, but how realistic is this based on current policy and funding?

The recent announcement from the UK government of £2bn is hugely welcome²³, and is an important step in the right direction, especially given that the cost / benefit ratios outweigh that of spending on roads of potentially 19:1 in the UK.²⁴

Despite the funding, very few places in the UK are currently implementing all of the necessary elements to support the shift to walking and cycling.

The following case studies illustrate places where this change has been initiated, focusing on design, strategy or multi modal integration. More recently, in response to the Covid-19 pandemic, the UK government has announced an initial £250m emergency active travel fund, the first stage of the £2bn investment already mentioned²⁵. This funding will be used to create pop up bike lanes with protected space for cycling, wider pavements, safer junctions, and cycle and bus only corridors. This is a significant step in the right direction and must lead to further permanent measures to support inclusive walking and cycling.

Case Studies

City of Edinburgh Council City Mobility Plan 2030

The City of Edinburgh Council recently released their City Mobility Plan 2030 as a draft for consultation²⁶, which integrates different departmental work into unifying policy, in this example, the role of housing development in encouraging walking and cycling:

“Building on and repurposing brownfield land rather than lower density development on greenfield sites has been the city’s preferred approach to development. It is the most sustainable approach, but if it is to be successful and connect the city’s dense built up areas to each other and to its green places better, public transport and cycling and walking routes and accessibility need to be prioritised and improved.”

City Mobility Plan 2030

Glasgow City Council

The South City Way is a grade separated uni directional cycle route, fully protecting those cycling from motor traffic on both sides of the road as well as separating them from pedestrians. When complete, the 3km cycle track will stretch from Queen’s Park in the south to the city centre. It is a Glasgow City Council project and the first of many projects to be delivered in collaboration with Sustrans’ Places for Everyone programme²⁷, on behalf of the Scottish Government.



South City Way, Glasgow

Walthamstow Mini Holland

The Walthamstow Mini Holland project has achieved what many places across the UK are seeking – a district scale network of segregated cycling facilities and improved built environment for pedestrians, new high quality public spaces, and low traffic neighbourhoods.

This highly successful and award winning programme of street transformation was achieved through strong political support and funding, as well as being expertly planned and designed to the highest standards. Despite the initial backlash to many of these schemes and the headlines of traffic chaos, the borough now enjoys streets free from illegal levels of air pollution, some of the highest rising levels of walking and cycling anywhere in the UK²⁸, and repeated requests for study tours from local authorities and organisations keen to emulate their achievements.

A key to the success of the programme was the borough wide approach to planning networks of safe and attractive cycling and walking infrastructure, and the clear design principles that were applied. £30m worth of funding was spent, which is still a small fraction of larger scale highways schemes funded centrally by the Department for Transport, but a substantial amount in terms of recent levels of spending on cycling infrastructure in the UK. This enabled the local authority to invest in developing robust plans that developed strategic cycling routes, as well as local networks of traffic filtered streets, and high levels of community engagement.

People are often hesitant of change. Following the initial concerns and opposition to many of these schemes when they were first launched, the subsequent public support has been overwhelmingly positive. It also resulted in an increased vote share for those supportive elected members.



Conclusion

Whilst there are many challenges around reallocating and investing in space for people, we have to design places which benefit everyone. The aim should be to capitalise on recent increases in walking and cycling due to the Covid-19 pandemic.

By designing for cars, we are excluding large parts of the population whilst adding to health and environmental crises. Planning and designing for the most vulnerable or marginalised people creates places which have a positive impact on everyone's health.

We need greater collaboration between design professionals and local authorities to achieve a holistic approach that successfully reconnects place and mobility. In order to design sustainable everyday journeys that transform our towns and cities into healthy and more prosperous places.

People must be at the heart of the process.

We would love to hear from you if you are interested in collaborating.



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References

- 1 Sustrans. (2016) Key walking and cycling statistics for the UK. Retrieved from <https://www.sustrans.org.uk/our-blog/research/all-themes/all/key-walking-and-cycling-statistics-for-the-uk/>
- 2 Ministry of Housing, Communities and Local Government. (2019) National Planning Policy Framework, para 106. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf
- 3 World Health Organization. (2020) Road traffic injuries. <https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>
- 4 Sustrans. (2019) Children in Scotland's poorest areas more likely to be injured by road traffic. Retrieved from <https://www.sustrans.org.uk/our-blog/news/2019/may/children-in-scotland-s-poorest-areas-more-likely-to-be-injured-by-road-traffic/>
- 5 Department for Transport. (2019) Decarbonising Transport: Setting the Challenge. Page 11. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878642/decarbonising-transport-setting-the-challenge.pdf
- 6 Nelsen, A. (2019) Europe's most deprived areas 'hit hardest by air pollution'. Retrieved from <https://www.theguardian.com/environment/2019/feb/04/europes-most-deprived-areas-hit-hardest-by-air-pollution>
- 7 Sustrans. (2019) Bike Life UK Report: Cities for people. Retrieved from https://www.sustrans.org.uk/media/5942/bikelife19_aggregatedreport.pdf
- 8 Pinto, A., et al. (2017) Spatial planning for health: an evidence resource for planning and designing healthier places. Great Britain: Public Health England.
- 9 The Place Alliance. (2019) Place Value Wiki: Walkability, active travel and related health. Retrieved from <https://sites.google.com/view/place-value-wiki/health/a4-walkability-active-travel-and-related-health>
- 10 Hart, J. and Parkhurst, G. (2011) Driven to excess: Impacts of motor vehicles on the quality of life of residents of three streets in Bristol UK. *World Transport Policy & Practice*, 17 (2). pp. 12-30. ISSN 1352-7614. Retrieved from <http://eprints.uwe.ac.uk/15513>
- 11 Gilderbloom, J. I., Riggs, W. W., & Meares, W. L. (2015) Does walkability matter? An examination of walkability's impact on housing values, foreclosures and crime. *Cities*, 42, 13-24.
- 12 Lawlor, E. (2013) *The pedestrian pound: the business case for better streets and places*. London: Living Streets.
- 13 New York City, Department of Transportation. (2012) *Measuring the Street: New Metrics for 21st Century Streets*, New York City Department of Transportation.
- 14 Hopkinson, L., Sloman, L. (2019) *Planning for less car use*. London. Transport for Quality of Life, Friends of the Earth.
- 15 Department for Transport. (2017) *Commuting trends in England 1988-2015*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877039/commuting-in-england-1988-2015.pdf

- 16 Bicycle Dutch. (2012) Sustainable Safety Retrieved from <https://bicycledutch.wordpress.com/2012/01/02/sustainable-safety/>
- 17 Sustrans. (2019) Bike Life UK Report: Cities for people. Retrieved from https://www.sustrans.org.uk/media/5942/bikelife19_aggregatedreport.pdf
- 18 Sustrans and Arup. (2019) Inclusive cycling in cities and towns - Stage 1 Report. Retrieved from <https://www.sustrans.org.uk/media/1029/1029.pdf>
- 19 Living Streets. (2018) A Guide to Low Traffic Neighbourhoods. Retrieved from <https://www.livingstreets.org.uk/media/3844/lcc021-low-traffic-neighbourhoods-detail-v9.pdf>
- 20 Department for Transport. (2019) Shortlisted second stage applicants for the Future Mobility Zones Fund competition. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814104/future-mobility-zones-fund-competition-second-stage-candidates.csv/preview
- 21 Arup. (2017) Cities Alive. Retrieved from <https://www.arup.com/perspectives/publications/research/section/cities-alive-designing-for-urban-childhoods>
- 22 Sustrans. (2019) Why we are calling for 20-minute neighbourhoods in our General Election 2019 manifesto. Retrieved from <https://www.sustrans.org.uk/our-blog/opinion/2019/november/why-we-are-calling-for-20-minute-neighbourhoods-in-our-general-election-2019-manifesto/>
- 23 Department for Transport. (2020) £2 billion package to create new era for cycling and walking. Retrieved from <https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking>
- 24 Davis, A. (2010) Value for money: an economic assessment of investment in walking and cycling infrastructure. Government Office for the South West and Department for Health.
- 25 Department for Transport. (2020) £2 billion package to create new era for cycling and walking. Retrieved from <https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking>
- 26 City of Edinburgh Council. (2020) City Mobility Plan: Connecting people, transforming places. Retrieved from https://consultationhub.edinburgh.gov.uk/sfc/city-mobility-plan/user_uploads/city-mobility-plan---draft-for-consultation-1.pdf
- 27 Sustrans. (2019) Places for Everyone. Retrieved from <https://www.sustrans.org.uk/our-blog/projects/2019/scotland/places-for-everyone>
- 28 Rachel Aldred, Joseph Croft, Anna Goodman. (2019) Impacts of an active travel intervention with a cycling focus in a suburban context: One-year findings from an evaluation of London's in-progress mini-Hollands programme. Transportation Research Part A: Policy and Practice, Volume 123, May 2019, Pages 147-169. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0965856417314866>

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Page 5 SWOV Institute for Road Safety
Research <https://www.swov.nl/>

Page 6 Crispin-Hughes, Sustrans

Page 7 Sustrans

Page 7 Sustrans. (2019) 20 minute
neighbourhood. Retrieved from <https://www.sustrans.org.uk/our-blog/opinion/2019/november/why-we-are-calling-for-20-minute-neighbourhoods-in-our-general-election-2019-manifesto>

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