**Brighton & Hove City Council** 

Our City Transport Plan 2035: Supporting Evidence Base

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# 1. Part 1: Brighton & Hove's transport infrastructure

- 1.1. This evidence base has been used to compile Our City Transport Plan 2035. It is published alongside the plan so that it is clear what information was used to formulate the plan and how issues and actions have been identified.
- 1.2. There are five parts to the evidence base. The first provides an overview of the city's physical transport infrastructure, an assessment of its performance and impacts, and a consideration of what changes are known about or planned. The second part is centred around understanding how people travel in Brighton & Hove and how well the transport network is meeting those needs, depending on the type of journeys being made.
- 1.3. The third part of this evidence base considers what the carbon emissions of the transport network are and the reductions in emissions this plan is likely to deliver. It directly responds to the commitment made in the Department for Transport's (DfTs) <a href="Decarbonising Transport">Decarbonising Transport</a> policy which states that quantifying carbon emission reductions will be a fundamental part of local transport planning. The fourth part collates relevant national, regional and the council's specific policies that inform Our City Transport Plan 2035. The fifth concludes the document by summarising the main challenges the evidence base has identified.

## 1.4. Population & communities

- 1.5. To understand people's travel behaviours and needs requires a knowledge of the city and its population. Brighton & Hove is a tightly constrained, compact city situated between the South Downs National Park and the sea. In 2021, the population was 277,100. The city's population increased at a lower rate (+1.4% between 2011 and 2021) than the South East region (+7.5%) and England and Wales (+6.3%)<sup>1</sup>.
- 1.6. There is lot of demand to live in the city, but providing an adequate supply of housing to meet this demand is challenging. The result is that housing affordability is an issue. In 2022, those on the lowest 25% of earnings needed 12 times their earnings to afford a property in the lowest 25% of house prices<sup>2</sup>. Left unchecked, this is likely to result in greater commuting into the city as people seek more affordable housing outside the city. In the decade up to 2021, there has been a net influx of 4,640 people into the city from London and other areas of the UK, while there has been a net migration of 2,335 people out of the city to East and West Sussex<sup>3</sup>.
- 1.7. The city has a below average proportion of the population over 60 and under 16 (see Figure 1.). There is an above average proportion of those aged 15-52, and the two universities mean there is a very high proportion of people in their early 20's. Growth over the next 20 years is likely to be strongest in those people aged 60 and over.

<sup>&</sup>lt;sup>1</sup> Census 2021; population and household estimates, England & Wales.

<sup>&</sup>lt;sup>2</sup> Council Plan 2023 to 2027; earnings and tenure.

<sup>&</sup>lt;sup>3</sup> Brighton & Hove Joint Strategic Needs Assessment, March 2024

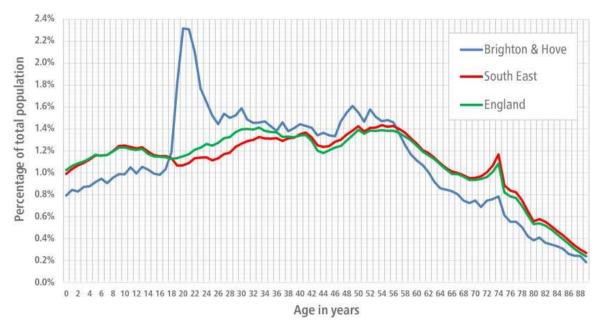


Figure 1. Brighton & Hove Population Profile, June 2021 (Source: Council Plan 2023 to 2027, Brighton & Hove demographics)

- 1.8. In 2021, 26.2% of residents were employed in professional occupations, which is higher than the English average of 20.3%. The largest employment sectors by broad industrial groups are health (16.3%), retail (11.3%), and education (11.3%)<sup>4</sup>.
- 1.9. Employment is concentrated in the centre of Brighton, where a well-defined network of retail and office space is located. Health services providers, particularly the hospitals in Kemptown and Elm Grove, are the largest employers. The University of Sussex and the University of Brighton, with campuses located in Falmer and Moulsecoomb, also contribute significant employment opportunities. Smaller industrial estates and offices are scattered throughout Brighton & Hove.
- 1.10. The area administered by the council includes settlements such as Woodingdean, Ovingdean, and Rottingdean, which are separated from the main urbanised area by agricultural land. Forty percent of the council's administrative area is within the South Downs National Park, which borders the urban areas to the north and east. The National Park designation protects the existing character of the Downs for residents and visitors to enjoy. It also means that the city is largely constrained within its existing boundaries, and future development to accommodate jobs and housing growth must be within these boundaries.
- 1.11. Areas where new residential and commercial developments are welcomed are outlined in <u>City Plan Part 1 and 2</u>. Figure 2 shows the 8 development areas where most new development is anticipated. Some of this has already been delivered or is being built, such as along the Lewes Road corridor or at Hove station. New development is planned in areas with existing levels of good public transport provision to encourage the adoption of sustainable modes of transport.

<sup>&</sup>lt;sup>4</sup> Census 2021; employment and level of qualifications.

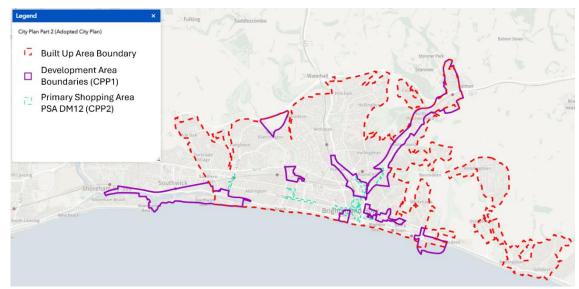


Figure 2. Planning policies showing development areas, the built-up area and National Park area (Source: <u>Adopted Policies Map</u>)

1.12. Population density, which is hugely important for the viability of public transport and ensuring that services are within walking distances of neighbourhoods, varies greatly across the city. Generally, the more historic areas of the city, apart from the city centre, which has lower residential density because of the large number of buildings used for commercial activity, have much high population density. Those areas of the city developed between 1945 and 1990, which tend to be further from the centre, have lower population densities and were often designed with the expectation that residents will rely on motor transport to access goods and services. Figure 3. Brighton & Hove population densitybelow shows the different population densities across the city.

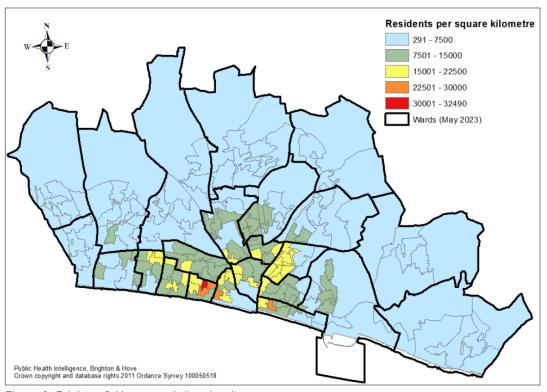


Figure 3. Brighton & Hove population density

- 1.13. There are concentrations of deprivation in both the centre and more outlying areas of Brighton & Hove. However, low-income households in more central areas generally have excellent access to services whereas low-income households living in more outlying areas are at risk of transport-related social exclusion<sup>5</sup>. This means that they will face significant disadvantages in accessing essential services such as employment, education, health and banking.
- 1.14. Figure 4 below shows the areas of the city at risk of transport-related social exclusion: Woodingdean, Bevendean, Coldean, Mile Oak, Hangleton, and parts of Hollingbury. Low-income households in these areas may be spending a large proportion of their income on private transport. Alternatively, households in these areas who lack access to a car, will face significantly longer journeys to access essential services.

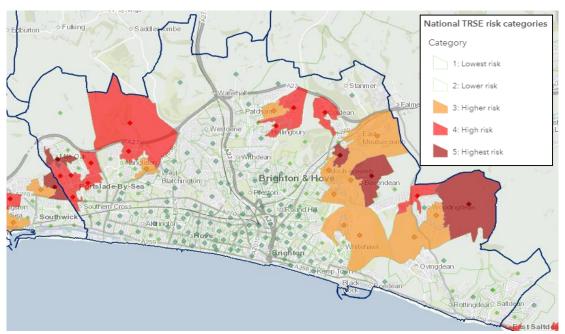


Figure 4. National transport-related social exclusion risk categories map. Source: Transport for the North.

### 1.15. Transport infrastructure overview

#### **Roads & pavements**

- 1.16. The council is responsible for managing and maintaining the vast majority of roads and pavements in the city. We are responsible for 621km of roads and 1,026km of footway (pavements alongside roads). The exceptions are roads considered to be of national importance, which are classified as part of the <a href="Strategic Road Network">Strategic Road Network</a> (SRN). The A27 and A23 north of the A27, as shown in Figure 5 below, are part of the SRN. These are managed by the central government body National Highways.
- 1.17. Below the SRN in the hierarchy of roads is a middle tier referred to as the Major Road Network (MRN), which is made up of busy and economically important A roads. The MRN and the rest of the road network, from B roads to the unclassified streets which make up the majority of the network, are managed by us.

<sup>&</sup>lt;sup>5</sup> <u>Transport Related Social Exclusion</u>; Transport for the North research

1.18. The classification of roads into Motorways, A roads, B roads and local roads is what many people will be familiar with. However, within the field of transport planning, there has been an increasing recognition over the past two decades that roads, outside the SRN, do not solely exist to move traffic. In addition to their traffic movement function, streets also provide for parking, loading and other uses. Streets, particularly those adjacent to cultural institutions, cafes and parks are important public spaces, where people visit to spend time.



Figure 5. The Strategic and Major Road Networks in the local area

1.19. This approach to managing roads is set out in technical guidance published by the DfT, the <u>Manual for Streets</u>. It provides advice on how lightly trafficked streets and important locations such as high streets should be designed so that their 'movement' and 'place' functions are both considered. When road improvement schemes are undertaken, we consider the movement and place functions of the space when designing the new layout.

#### Other public paths

1.20. In addition to footways, we are responsible for a further 159km of footpaths, bridleways, and byways. These are mostly located on land north of the A27 or in the east of the city. The council has published a <u>Rights of Way Improvement Plan</u> 2017-2027 setting out how these paths will be managed and improved. The priority is on improving connectivity to green spaces and accessibility for diverse users. The council maintains <u>a map of public rights of way</u> on its website. Table 1 lists the number and length of each public rights of way type.

| Public right of way type | Number | Length (km) |
|--------------------------|--------|-------------|
| Footway                  | 574    | 86          |
| Bridleway                | 56     | 63          |
| Restricted Byway         | 8      | 7           |
| Byway                    | 8      | 3           |

Table 1. Public Rights of Way within Brighton & Hove, type and length

#### **Bus infrastructure overview**

- 1.21. Buses are the most important form of public transport within the city, with annual bus journeys more than double those made by rail. We support bus services by dedicating road space for bus lanes and managing the bus stops, shelters, and real-time bus information on the city's footways. Bus lanes are concentrated on the MRN and in the city centre.
- 1.22. There are approximately 6.5km of bus lanes in both directions on the A270 Lewes Road, which connects the city centre to the two university sites in the north-east of the city. The A23, London Road, which runs from Patcham in the north to the city centre in the south, has approximately 1.3km of bus lane, with the majority in the southbound direction. The A259 seafront road Marine Parade, which runs east/west also has about 2km of bus lane in the settlements of Rottingdean and Saltdean.
- 1.23. In the city centre, there is a mixture of bus lanes and bus gates to give buses priority on the road network. This includes significant provision on Edward Street, North Street, and Western Road.
- 1.24. The infrastructure that we maintain supports the operation of buses provided by the privately run bus operators in the city. The Brighton & Hove Bus Company (owned by the Go-Ahead Group) is by far the most significant operator, providing about 96% of services. Compass Travel operate some subsidised routes in the city while Stagecoach and Metrobus tend to provide longer distance connections to settlements across Sussex. The Brighton & Hove Bus Company route map is reproduced in Figure 6 and Figure 7.

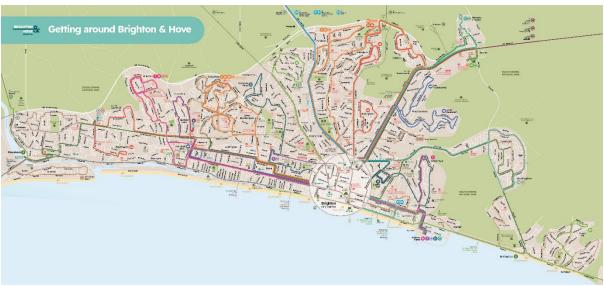


Figure 6. Brighton & Hove Buses Route Map



Figure 7. Brighton & Hove Buses Central Brighton map with updates from October 2024

- 1.25. The council subsidises bus services to areas of the city that would not otherwise have direct services. Brighton & Hove Buses operate the 21, 77, 78, and 79 subsidised services, while Compass Travel operates the 16, 37, 47, and 52 City Buzz subsidised services. The council also subsidises some school bus services.
- 1.26. A significant proportion of bus journeys are made by people using a concessionary bus pass; people who are of pensionable age and people with qualifying disabilities. There are over 42,000 pass holders in Brighton & Hove, of whom 7,000 are issued to disabled residents. The cost of these journeys is met by the council under the English National Concessionary Travel Scheme, at a cost of approximately £10.2 million in 2024/25.
- 1.27. The council published a Bus Service Improvement Plan (BSIP) in 2021, setting out how we would use £27.9 million of central government funding to improve services between 2022 and 2025. This plan has been refreshed and a further £9.3 million of funding secured from central government for the financial year 2025/26.

## Cycle infrastructure overview

1.28. People on cycles can make use of the wider road network, but the risk of injury from a collision with a car, van, or lorry is a major deterrent for many people who might otherwise cycle. This is especially the case on roads with high traffic volumes. Cycle facilities, which are segregated from heavier and faster motor traffic, are needed on busier roads to make it a viable option for the majority of people.

- 1.29. Quantifying the amount and quality of cycle infrastructure in Brighton & Hove is not straightforward. Cycle lanes, which do not physically segregate cyclists from motor traffic, generally do not meet the most recent design standards as set out in the DfT's guidance note <u>LTN 1/20</u>. On lightly trafficked roads, segregated cycle facilities are not necessary if motor traffic speeds and volumes are low. Many urban roads in Brighton & Hove have a 20mph speed limit.
- 1.30. Figure 8 shows the current cycle network. Provision is good on the A259 seafront road, sections of the A23, the A270 Lewes Road, and some other major thoroughfares. Brighton's Local Cycling and Walking Infrastructure Plan (<u>LCWIP</u>) sets out the priorities for future improvements with 12 priority routes identified for future upgrades.



Figure 8. Cycle Network Map within Brighton & Hove

#### Rail infrastructure overview

- 1.31. Brighton's rail infrastructure consists of the Brighton Mainline, east and west Coastways. The Brighton Mainline connects to London and beyond. The East Coastway line connects the city to Lewes, Eastbourne, Hastings and Ashford in Kent. The West Coastway line connects the city to Chichester, Portsmouth and Southampton. Brighton station acts as a terminal point for all three lines meaning journeys east/west along the coast must interchange here. Figure 9 below shows these lines along with locations north of London that can be directly reached on Thameslink cross London services.
- 1.32. The council has no direct control over rail infrastructure or services in the city. The city's 8 rail stations, highlighted in Figure 10, are currently all operated by Govia Thameslink Railway, the train operating company that holds the contract to run rail services in our area. However, central government plans to nationalise all rail services by 2027.



Figure 9. Rail Network connected with the Brighton & Hove area, with though London services highlighted in purple.

1.33. A forthcoming Railways Bill will create Great British Railways, which will be responsible for both the train services and the rail infrastructure currently managed by Network Rail. Network Rail have been responsible for planning improvements to the rail network on behalf of the DfT. They organise the rail network into <a href="14">14</a> routes, with the Sussex Route encompassing the Brighton Main Line and its associated branches. Network Rail has undertaken studies to explore what future enhancements to the rail network are feasible<sup>6</sup>. The DfT ultimately sets the priorities for rail infrastructure improvements, meaning the council must lobby the DfT for infrastructure improvements or any desired service changes.

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<sup>&</sup>lt;sup>6</sup> Sussex Area Route Study, 2015, for Brighton Mainline West Sussex Connectivity: Modular Strategic Study, 2020, for West Coastway line East Sussex Coast & Marshlink Strategic Study, 2025

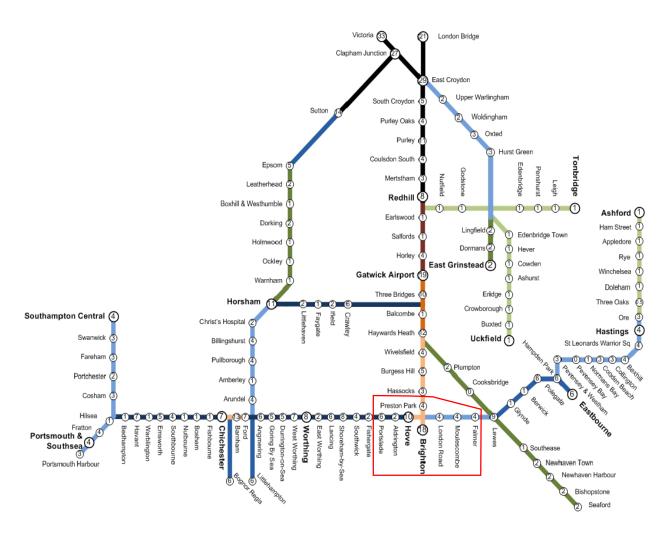


Figure 10. Detailed rail network map in the South East, with Stations within Brighton & Hove highlighted in the red box

#### Port infrastructure

- 1.34. The western end of Shoreham Harbour is within the council's administrative area. The majority of the port lies within the neighbouring authorities of West Sussex County Council and Adur District Council.
- 1.35. The council is working in partnership with Adur & Worthing Council, West Sussex County Council, and Shoreham Port Authority on a joint project to regenerate Shoreham Harbour and the surrounding areas. The vision is that by 2031, Shoreham Harbour will be transformed into a vibrant, thriving waterfront destination made up of a series of sustainable, mixed-use developments alongside a consolidated and enhanced Shoreham Port, which will continue to play a vital role in the local economy.
- 1.36. The Shoreham Port Industrial Cluster has been successful in its application to the Local Industrial Decarbonisation Plans competition. This funding will allow businesses and partners to work together on plans to reduce emissions, learn from each other, and also have access to technical advisors to prepare for adopting measures such as using hydrogen or carbon capture.

#### **Digital infrastructure**

- 1.37. While not strictly transport infrastructure, internet connectivity and digital infrastructure are included here because of their importance in reducing the need to travel, as they facilitate online shopping and remote working. Our local economy also specialises in the creative, digital, and IT sectors.
- 1.38. Our City Plan Part 1 outlines how we support the supply and maintenance of efficient digital and telecommunication infrastructure across the city. Installation of full-fibre broadband was planned across the entire city by the company City Fibre, but rollout has been partial to date: Moulsecoomb, Bevendean, Woodingdean, east Brighton, parts of Hanover, and Elm Grove have been completed. Additional areas are expected to be completed, but timing information is unavailable.

## 1.40. Transport infrastructure performance

## Roads & pavements

- 1.41. To assess the performance of our roads and pavements, we have considered their physical condition, data on journey times, and surveys of public satisfaction. The physical condition is assessed from inspections and surveys we have commissioned<sup>7</sup>. The DfT compiles traffic delay data<sup>8</sup> which compares an estimate of free-flowing traffic speed against reported travel times. Public satisfaction is gauged using the National Highways & Transport (NHT) public satisfaction survey<sup>9</sup>.
- 1.42. Figure 11 below shows the location of the automatic traffic count sites that the council maintains. These are located on the MRN across the city. The annual average daily flows recorded at these sites show that traffic volumes are generally lower than 10 years ago, with only one site recording higher volumes of traffic<sup>10</sup>. The DfT also estimate the volume of traffic kilometres per local authority based on their own count sites<sup>11</sup>.
- 1.43. The DfT records date back to 1993 and show that the number of vehicle kilometres travelled in Brighton & Hove rose steadily from 1,205 million to the highest they have ever been in 2002; a peak of 1,361 million vehicle kilometres (vkm). Traffic then declined until it reached 1,228 million vkm in 2010. The trend from 2010 to 2019 was rising, with 1,289 million vkm recorded in 2019. The pandemic saw traffic volumes drop sharply in 2020 to 1,022 vkm. By 2022 traffic volumes had risen to 1,203 million vkm and by 2024 there were 1,222 million vkm recorded. While rising, the level of traffic in 2024 was among the lowest recorded in the past 30 years. It remains to be seen if the reduction in travel, observed after the pandemic, will be a long-lasting change.

<sup>10</sup> Brighton & Hove City Council Traffic count sites

<sup>&</sup>lt;sup>7</sup> Carriageway & Footway Condition Modelling Report 2023, XAIS Asset Management

<sup>&</sup>lt;sup>8</sup> Local A Roads Speed and Delay & data tables

<sup>&</sup>lt;sup>9</sup> NHT 2024 public satisfaction survey

<sup>&</sup>lt;sup>11</sup> DfT Road Traffic estimates by local authority & data tables

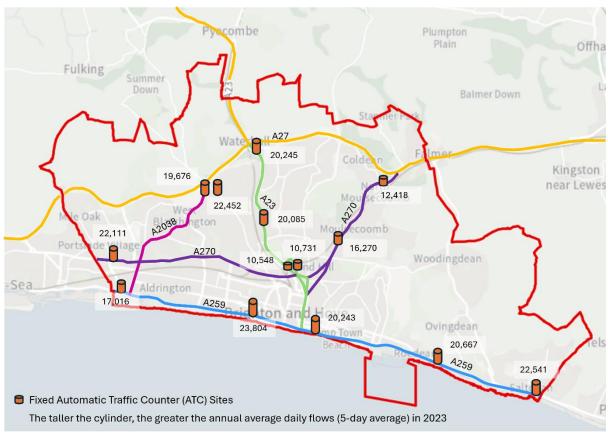


Figure 11. Annual average daily traffic flows within Brighton and Hove based on the Fixed Automatic Traffic Counters

- 1.44. Like other local authorities the dedicated budget we receive from central government for roads and footway maintenance has been insufficient in recent years, and the condition of these assets has been worsening. The 2023/24 budget for planned maintenance of our roads was £2.9 million, with an additional £400,000 allocated for footway maintenance. Condition surveys show that there is a maintenance backlog of £57 million on our roads and £37.3 million on our footways<sup>7</sup>. While the 2025/26 budget saw a significant increase in grant funding for maintenance, to £5.3m, additional funds are required to tackle the backlog of work.
- 1.45. To use our limited maintenance budget effectively, the council currently delivers a 'seek and fix' footway maintenance programme. Our highway inspectors identify footways where there are clusters of defects and areas nearing defect status and prioritise these areas for resurfacing. In addition to planned repair work, circa £680,000 is spent on reactive carriageway maintenance (pothole repairs) and £450,000 on reactive footway maintenance each year to repair defects that pose a hazard to users.
- 1.46. We currently lack data on how much of our footway network meets minimum width standards, but we are aware of many examples where this is not achieved, particularly in older parts of the city. DfT guidance on <a href="Inclusive Mobility">Inclusive Mobility</a> states that a footway width of 2m is the minimum that should be provided. If this is not feasible due to physical constraints, then a minimum of 1.5m could be regarded as the minimum acceptable under most circumstances. Where there is an obstacle, such as a lamp column or tree, the absolute minimum width should be 1m, with the maximum length of this restricted area being 6m.

1.47. DfT travel data8, reproduced in Figure 12 and Figure 13 below, show that the average delay on Brighton & Hove's local A roads is among the highest of any local authority outside of London, with roads in other urban areas on the south coast performing better. In 2023, the average delay in Brighton & Hove was 111 seconds per vehicle per mile (spvpm). This compares with the inner London average of 160 spvpm, Southampton's 102 spvpm, Portsmouth's 76 spvpm, and Bournemouth, Christchurch & Poole's 64 spvpm<sup>12</sup>. DfT data for travel time on local A roads is only available from 2020 onwards so trends pre-pandemic are not available.

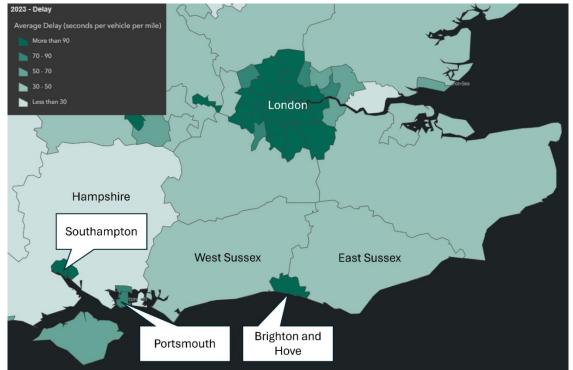


Figure 12. Average delay on Brighton & Hove's local A roads. Source: DfT

- 1.48. As could be expected, delays in rural areas are lower than in urban areas. East Sussex and West Sussex both experience much lower average delays of between 30-40 spypm on their local A roads. The DfT data also allows us to compare the performance of individual roads. Figure 13 shows average delays on both the SRN, which is managed by National Highways, and the 7 local A roads that the DfT monitor, which Brighton & Hove is responsible for.
- 1.49. In the vicinity of Brighton & Hove, the SRN comprises the A27 and A23, both of which are multi-lane dual carriageways that generally perform well with low average delays. However, as a city with a high number of visitors, there can be delays on these roads at particularly busy times. The only routine issue on the SRN is with minor delays on the eastern section of the A27, from the junction with the A270 at Falmer. This delay is likely to be caused by a bottleneck at the junction.
- 1.50. Figure 13 illustrates how delays increase significantly as traffic transfers from the higher capacity SRN to the local A road network, which is generally single lane and therefore has lower capacity. Delays tend to be worse closer to the city centre. The most severe delays exceeding 200 spvpm occur on:

<sup>&</sup>lt;sup>12</sup> Average Speed and delay on local A roads 2023 (Table CGN05). DfT.

- A2023 between the seafront and Old Shoreham Road
- A2010 between the seafront and Seven Dials
- A23, London Road, between St Peter's Church and Preston Circus.
- A270, Upper Lewes Road and viaduct Road, between Preston Circus and Vogue Gyratory
- 1.51. In the built-up area, there is no available land for increasing road capacity without demolishing existing buildings. Instead, our approach is to increase the efficiency with which our existing road space is used, with buses and cycles being the most efficient modes of transport for moving people short distances in an urban area<sup>13</sup>.

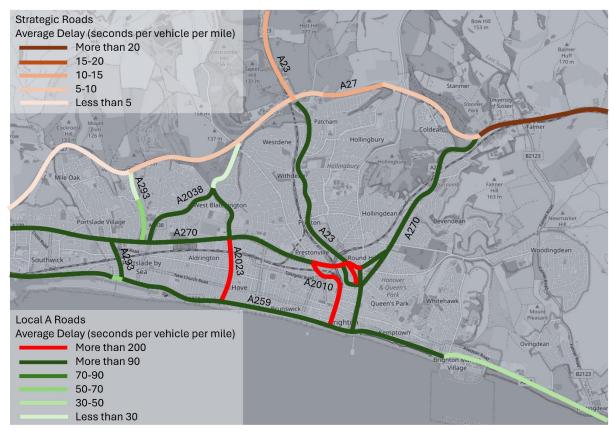


Figure 13. Detailed map with an average delay of SRN and Local A Roads within Brighton & Hove across 24 hours by Link

1.52. The council participates in the NHT public satisfaction survey<sup>9</sup>, which provides feedback on the public's perception of how local authorities are managing their transport assets. In 2023 111 local authorities took part, and these results are used to create a national average score against which we can benchmark our performance. This report includes tables showing the council's score along with a colour indicating how well we performed against relative to other local authorities.

Colour indicating the council's performance is in the top quartile, 1% - 25%

Colour indicating the council's performance is in the second quartile, 26% - 50%

Colour indicating the council's performance is in the third quartile, 51% - 75%

Colour indicating the council's performance is in the bottom quartile, 76% - 100%

<sup>&</sup>lt;sup>13</sup> Getting Cities Moving, National Infrastructure Commission, 2022

1.53. Table 2 shows selected indicators related to roads and pavements that are managed by the council. Satisfaction with the condition of pavements and roads is low nationally. In the past 5 years, the council has generally been perceived as performing above the national average, but in the most recent 2023 survey, the results fell below average. There is a perception that there is a particularly acute issue with weeds on pavements and delays in repairs where needed.

| Indicator                    | National<br>Average | the<br>council | Gap  |
|------------------------------|---------------------|----------------|------|
| Condition of highways        | 27%                 | 24%            | -3%  |
| Number of potholes           | 14%                 | 11%            | -3%  |
| Weed killing on pavements    | 39%                 | 28%            | -11% |
| Action to repair local roads | 27%                 | 19%            | -8%  |

Table 2. Public Satisfaction of Selected Indicators Related to Roads and Pavements

1.54. In 2019, the council moved to a maintenance schedule that relied on manual weeding, but in May 2024 introduced a controlled-droplet application of glyphosate, which is more targeted and sustainable than previous methods of glyphosate application. It is expected that this will improve outcomes by keeping the pavements weed-free and mitigating environmental risks.

#### Other public paths performance

1.55. The council manages a 159km countryside network comprising footpaths, bridleways, restricted byways and byways open to all traffic shown in Figure 14. The network includes 155 gates, 312 waymarks and 26 stiles.



Figure 14. Public Rights of Way Network

1.56. In early 2026 the results of an updated Public Rights of Way Asset Survey will be available. At the time of compiling this evidence base 47% of footpaths, 78% of bridleways and 100% of byways open to all traffic had been surveyed. Among these, 81% of footpaths, 69% of bridleway and 63% of byways open to all traffic are reported to be in good condition. Moreover, 15% of gates require repairs while 14% need to be replaced. Furthermore, 32% of waymarks are either missing or in need of repair and 17% of stiles require repairs.

1.57. The performance of the paths that make up the public rights of way network is best gauged through the NHT public satisfaction survey. Overall, the performance of the public rights of way network presented in Table 3 is perceived as being above the national average, with the main issue being overgrown footpaths.

| Indicator                              | National<br>Average | The council | Gap |
|--|---------------------|-------------|-----|
| Condition of rights of way             | 52%                 | 57%         | 5%  |
| Ease of use by those with disabilities | 42%                 | 46%         | 4%  |
| Information on rights of way           | 46%                 | 50%         | 4%  |
| Overgrown footpaths and bridleways     | 37%                 | 36%         | -1% |
| Rights of way overall                  | 54%                 | 55%         | 1%  |

Table 3. Public Satisfaction of Selected Indicators Related to Public Rights of Way

1.58. With an annual maintenance budget of approximately £24,000, a prioritisation method is in place to ensure effective planning. Maintenance focuses on paths and assets that fail to meet statutory requirements or pose significant risks of injury or damage, which are therefore given higher priority.

#### Bus infrastructure performance

1.59. Bus use in Brighton & Hove is high compared to other UK cities<sup>14</sup>. The number of bus journeys per head of population is the second highest in the UK, with only London having more. Figure 15 shows the annual number of journeys made by bus in Brighton and Hove over the past decade.

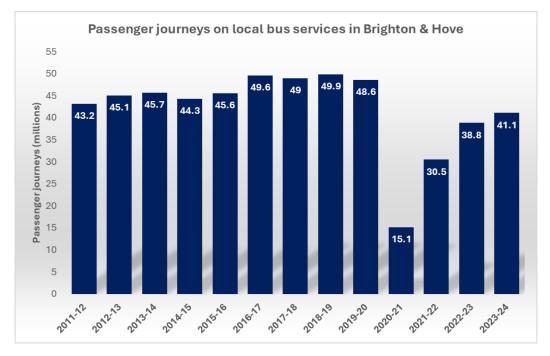


Figure 15. Number of Bus Journeys on Brighton & Hove Bus Services

1.60. While usage is recovering from the lows seen during the Covid pandemic, in the year ending March 2024, there were just over 41 million trips by bus. This is significantly

<sup>&</sup>lt;sup>14</sup> Local bus passenger journeys (<u>table BUS01</u>), DfT statistics.

lower than in 2019, pre-pandemic, when the number of annual journeys was close to 50 million.

- 1.61. To aid the recovery of bus travel, the council has published a BSIP, which was refreshed in 2025<sup>15</sup>. Funds are used for a mix of fare subsidies and bus infrastructure designed to improve bus journey times. For bus travel to be attractive, it needs to be affordable and provide competitive journey times compared to car travel. The council provided approximately £1.14 million in 2024/25 in funding for supported bus services, including services to the South Downs National Park, communities not served by the commercial bus network and school buses.
- 1.62. The DfT publishes data on what percentage of non-frequent services run on time and the average excess waiting time for frequent services. However, data on frequent services' excess wait time is largely incomplete, with no data available for the council's area. The punctuality of non-frequent services in the city is broadly in line, although slightly below, the English and Southeast regional average<sup>16</sup>.



Figure 16. Percentage of Non-frequent Bus Services Running on Time in Brighton & Hove

- 1.63. Punctuality figures for Brighton & Hove Buses, representing most bus services in the city, reduced from 85.5% between April 2014 and March 2015 to 80.4% for 2019-2020. In 2020-2021, which includes the Covid-19 lockdowns, the figure improved to 87.6%. However, the punctuality decreased again in 2023/24. We have also engaged with Brighton & Hove Buses to understand long term trends in scheduled journey times of bus routes. The trend has been for increased journey times on the majority of routes. Between 2008-16 there was an average increase of 12% on journey times. Between 2016-2025 there was a further 11% average increase in route journey times.
- 1.64. There are likely to be varied causes for the rise in bus journey times. As seen in Figure 15 bus ridership was rising until the pandemic and passenger volumes will affect journey times, particularly on high-frequency urban services, where boarding and alighting rates are high. Other possible causes include roadworks, road space

<sup>&</sup>lt;sup>15</sup> Concessionary Fares and BSIP update, Brighton & Hove City Council cabinet report, 2025

<sup>&</sup>lt;sup>16</sup> Local bus passenger journeys (table BUS09) DfT statistics

- reallocation, signal phase changes, and more stringent driver safety margins built into schedules to maintain reliability. However, traffic congestion is often an important factor in bus journey times.
- 1.65. Through our enhanced bus partnership we will work with bus operators to identify bus priority measures to reduce bus journey times. BSIP projects include schemes at Dyke Road/Upper North Street, A259 Marine Parade, and A23 North (Patcham). The BSIP target is to increase the punctuality of bus services to 95% and a 10% reduction in journey times by 2030, using 2018/19 as a baseline.
- 1.66. The public perception of the local bus services is very good. In the NHT public satisfaction survey, all but one of the 28 questions about buses scored a response in the top quartile. The only area where satisfaction fell below the national average was the issue of bus fares. Selected questions are shown in Table 4.

| Indicator                    | National<br>Average | The council | Gap |
|------------------------------|---------------------|-------------|-----|
| Frequency of bus service     | 51%                 | 72%         | 21% |
| Number of bus stops          | 64%                 | 79%         | 15% |
| Whether buses arrive on time | 48%                 | 60%         | 12% |
| Bus fares                    | 54%                 | 52%         | -2% |
| Local bus service overall    | 54%                 | 71%         | 17% |

Table 4. Public Satisfaction of Selected Indicators Related to Bus Service

- 1.67. The council has undertaken an analysis of how well served neighbourhoods across the city are by bus services as part of the BSIP 2025 Refresh<sup>17</sup>. This study has identified areas with lower bus accessibility and priority areas for action. Prioritisation was based on how accessible areas are, the number of deprived households and/or full-time student population, and the potential for modal shift based on accessibility and car availability.
- 1.68. Mile Oak, Coldean & Falmer, Woodingdean, Bevendean, and Saltdean were identified as lower accessibility areas, meaning residents in these areas are reliant on public transport and will travel for longer to access employment or key services such as schools, GPs, and so on. Figure 17 sets out areas with the lowest accessibility by time period<sup>18</sup>.

<sup>&</sup>lt;sup>17</sup> 2025 BSIP Refresh

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<sup>&</sup>lt;sup>18</sup> Source: Jacob's BSIP Accessibility Study for Brighton & Hove City Council. 2024

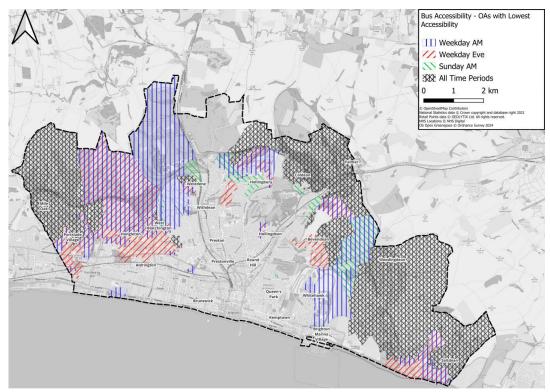


Figure 17. Lower Accessibility areas across all three tested time periods in 2024

1.69. Mile Oak, Coldean & Falmer, East Bevendean, and East Woodingdean were identified as the highest priority for local need (see Figure 18), while Mile Oak, Portslade, West Blatchington, Woodindean, Ovingdean, and Saltdean were determined as high potential for modal shift (see Figure 19).

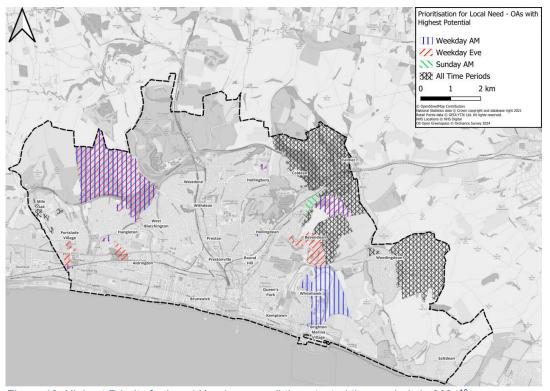


Figure 18. Highest Priority for Local Need across all three tested time periods in 2024<sup>18</sup>

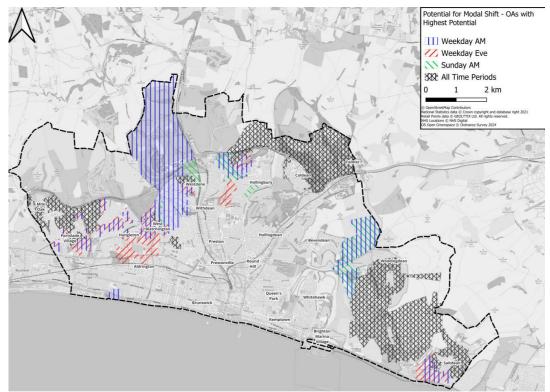


Figure 19. High Potential for Modal Shift across all three tested time periods in 2024<sup>18</sup>

- 1.70. Some high-level improvements were suggested in the report to provide the greatest social benefit. Regarding local need, bus priority measures on Church Road or Western Road could benefit Mile Oak residents using the 1X route, as well as benefit parallel routes. A service connecting the area to Hangleton or Old Shoreham Road during the evening and Sunday morning periods could also be beneficial. Bus priority measures on Lewes Road between Coldean and Moulsecoomb would likely reduce bus journey times, which could benefit Coldean & Falmer residents.
- 1.71. To offer the highest potential for modal shift to bus, localised information campaigns, particularly delivered alongside any service improvements or fare offers, were proposed for all areas of focus. More localised proposals include providing an express route to central Brighton to benefit Downs Park/ Hangleton residents and bus priority measures on the A259 to benefit Saltdean residents and other services.

## Cycle infrastructure performance

- 1.72. The number of people choosing to cycle is probably the best indicator of how well our cycling infrastructure is performing. Trends on the number of people choosing to cycle is difficult to judge with the information available to us. Since 2020, we have been carrying out dedicated cycle counts at 15 locations across the city. However, 2020 is not a good year to use as a baseline because across the UK, there was an increase in cycling trips, stages, and miles travelled during 2020 associated with the pandemic. By 2023, the average number of trips and stages have returned to similar levels seen in 2019<sup>19</sup>.
- 1.73. Taken as a whole, the 15 count sites reflect this UK wide trend, with cycling having declined slightly from 2020 to 2023 in Brighton & Hove. The exception to this is the two

<sup>&</sup>lt;sup>19</sup> DfT statistical release, walking & cycling Aug 2024

- count sites located on the Old Shoreham Road, where there is a segregated cycle facility, which both recorded an increase in cycle trips over the period.
- 1.74. The 2021 census data, which asks how people travel to work, is also affected by the pandemic, with a far greater increase in home working and a decline in other modes. It cannot be usefully compared to 2011 to see what trends there are across the city. The census data does show us which areas of the city have higher rates of cycling for trips to work, with the Round Hill area of Brighton and much of Hove seeing cycling to work at rates of 7-10%. The LCWIP document sets out in greater detail an analysis of cycling across the city.
- 1.75. Since 2016 the DfT have annually surveyed people as to their walking and cycling habits<sup>20</sup>. This reveals how frequently people walk and cycle for either travel or leisure purposes. The rates of cycling in Brighton & Hove are much higher than the UK average. This is true for both regular (3 or more times a week) and infrequent (once a month) cyclists. For example in 2016, 16.3% of Brighton & Hove residents cycled once a week for travel purposes compared with 6.3% for England.
- 1.76. The trend since 2016 has been downward in both Brighton & Hove and England. In 2023 only 11.4% of Brighton & Hove residents cycled once a week for travel compared with 5.4% in England. The fact that Brighton & Hove's results mirror those at the national level suggest that the decline in cycling is not primarily due to local factors.

#### Rail infrastructure performance

- 1.77. The long-term trend over the past 25 years has been increasing usage of the rail network, although growth has been slower in the past decade. Figure 20, showing entries and exits for the 8 stations in the Brighton & Hove area, is consistent with nationwide trends brought about by the pandemic. Patronage of the rail network is still significantly lower than pre-pandemic levels.
- 1.78. In Brighton & Hove, immediately prior to the pandemic, there were 24 million entries and exits through the city's 8 train stations. This sank to less than 6 million at the height of the travel restrictions imposed during the pandemic, and in 2022/23, this had recovered to just over 19 million, which is 21% fewer trips than in 2019/20.

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<sup>&</sup>lt;sup>20</sup> DfT National Travel Survey and Active Lives Survey

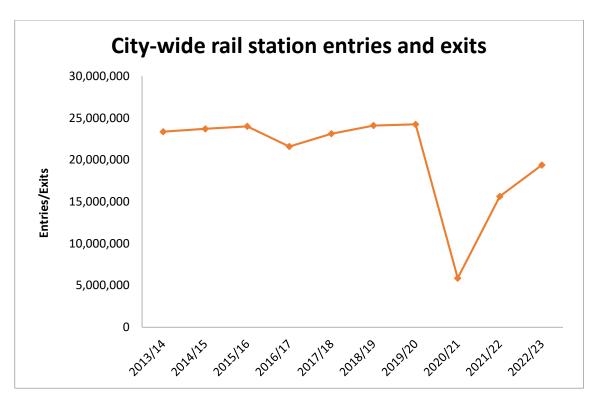


Figure 20. Graph showing combined entry and exit figures for the 8 Brighton & Hove stations. Note that figures for 2016/17 were affected by industrial action.

- 1.79. Approximately 27,000 rail passengers arrived at Brighton station on a typical weekday in 2023<sup>21</sup>. Immediately prior to Covid, this figure would have been around 33,000. In the morning peak, between 7am and 10am, just under 6,000 people arrived, whereas before the pandemic, it would have been around 8,000.
- 1.80. Govia Thameslink has reported a strong bounce back in leisure travel post-pandemic, with weekend travel now higher than pre-Covid. Journeys to Brighton are now busier on Saturdays than on weekdays<sup>22</sup>. However, commuter travel has returned in smaller numbers as businesses find more efficient ways of working with less travel, for example, working from home and hybrid working.
- 1.81. Rail services have responded to the new travel patterns with fewer services arriving and departing the city. In 2019, there were 360 train services arriving and departing the city, but by 2023, this had reduced to around 270 services. The decline in the rail capacity serving the city is much less pronounced. In terms of seated capacity, there were an average of 118,000 arriving in the city in the three years prior to the pandemic, compared with 102,000 in 2023.
- 1.82. Before the pandemic, passenger crowding and comfort in the morning and afternoon peaks were major issues, but this is no longer the case with lower passenger numbers. The percentage of passenger crowding in Brighton was recorded at zero from 2020 to 2023, indicating that the number of passengers remained lower than the capacity.

<sup>&</sup>lt;sup>21</sup> Rail passenger numbers and crowding on weekdays (RAI02)

<sup>&</sup>lt;sup>22</sup> DfT Statistical release, Sep 2024

1.83. National Rail publishes data on train punctuality by station, although this is most conveniently viewed on the 'On time trains' website<sup>23</sup>. In general, Brighton & Hove stations are in line with the UK average performance for cancelled and delayed trains with the exception of Preston Park, which in 2023 suffered from a high number of cancellations and late trains (see Figure 21). Stations on the West Coastway, Falmer, Moulsecoomb and London Road generally had better performance than elsewhere.

## 100% 95% 90% 85% 80% 75% 70% 65% 60% Prior period This period BTN - 85% @ HOV 81% @ MCB . 94% @ LRB · 92% @ London Road (Brighton) PLD 84% PRP · 76% @ 94% AGT · 89% @ Portslade 🕣 Preston Park Falmer ( Aldrington 🕣

# 2023/24 – 31-day average punctuality by station

Figure 21. 31-day average punctuality performance. Reproduced with permission from OnTimeTrains.

## 1.84. Transport infrastructure impacts

- The transport network brings clear benefits, increasing accessibility, connecting people and facilitating trade. However, it also has negative impacts, the most significant of which are:
  - greenhouse gas (GHG) emissions
  - air pollution
  - noise pollution
  - casualties

1.80. Section 3 of this document covers GHG emissions from the transport network.

## **Air Pollution**

1.81. Poor air quality is the largest environmental risk to public health in the UK<sup>24</sup>. Legal limits are in place, which set the maximum allowed concentrations for several air

<sup>&</sup>lt;sup>23</sup> On Time Trains

<sup>&</sup>lt;sup>24</sup> Public Health England, Estimating local mortality burdens associated with particulate air pollution

- pollutants. Most measured pollutants in the UK are under the legal limit. However, the two pollutants of most concern, and which have breached legal limits in many urban areas, are particulate matter (PM) and Nitrogen Dioxide (NO<sub>2</sub>).
- 1.82. PM refers to any pollutant in the air which is not a gas. PM is classified according to size, with PM10 referring to particulates less than 10 micrometres in diameter and PM2.5 those less than 2.5 micrometres in diameter. For reference, a human hair is about 60 micrometres wide. PM10 is small enough to enter the lungs. Road traffic is a major source of both PM and NO<sub>2</sub> pollutants.
- 1.83. Long-term exposure to lower concentrations of pollutants and short-term exposure to higher levels of pollution are both damaging to people's health. For this reason, legal limits for air quality standards are set for both scenarios. Concentrations of PM and NO<sub>2</sub> are measured in micrograms per cubic meter, µg/m3.
- 1.84. Table 5 shows the current legal limits.

|                 | Current legal limits |          |                 |
|-----------------|----------------------|----------|-----------------|
| Pollutant       | PM10                 | PM2.5    | NO <sub>2</sub> |
| Annual average  | 40 μg/m3             | 20 μg/m3 | 40 µg/m3        |
| 24-hour average | *50 µg/m3            | -        | -               |
| 1-hour average  | -                    | -        | **200 µg/m3     |

Table 5. Legal limits for PM and NO<sub>2</sub>.\* Note the 24-hour limit cannot be exceeded more than 35 times a year. \*\*The hourly average cannot be exceeded more than 18 times per year.

- 1.85. In response to exceedances of the legal limit for NO<sub>2</sub>, the council declared two Air Quality Management Areas (AQMA) in 2013. We are required to undertake enhanced monitoring, publish annual Air Quality Status Reports, and an Air Quality Action Plan setting out what measures we will implement to reduce emissions within legal limits.
- 1.86. Annual monitoring reports have been published since 2015 with the latest one being the 2024 Report. Over the past decade air quality has steadily improved and the original two AQMAs have been replaced with six smaller ones, shown in Figure 22 below. Road transport is responsible for 80% of NO<sub>2</sub> concentrations at roadside, with diesel vehicles the largest source in local areas of greatest concern<sup>25</sup>. As could be expected all of our AQMA are focused on roads and junctions that carry high volumes of traffic.

<sup>&</sup>lt;sup>25</sup> DEFRA / DfT, UK plan for tackling roadside nitrogen oxide concentrations, 2017

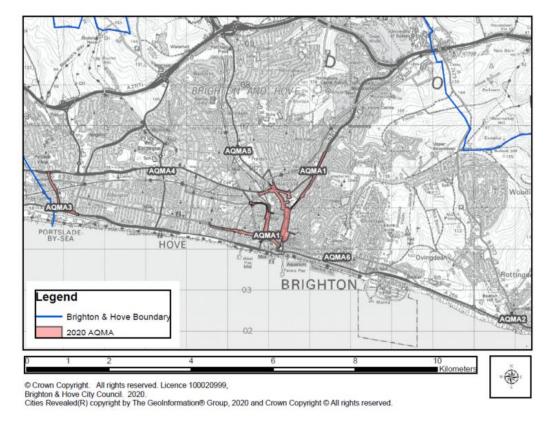


Figure 22. Air Quality Management Areas (AQMA) in 2020

1.87. The council has implemented various actions, including the Brighton & Hove Bus Ultra-low Emission Zone (ULEZ). While the bus ULEZ covers a relatively small area on Western Road and North Street, it captures well over 90% of buses operating in the city. A detailed breakdown of the sources of NO<sub>2</sub> in each AQMA and future actions to reduce NO<sub>2</sub> will be set out in the most recent status reports or AQMA action plan<sup>26</sup>.

## Noise pollution

- 1.88. Noise can have a significant impact on our health, with the volume, timing and duration of a sound relevant to its effects on human health. In 2018, the World Health Organisation (WHO) published environmental noise guidelines for the European region, which were based on systematic reviews of the scientific literature. This defined the harmful long-term noise exposure level above which a significant increase in negative health effects occurs as 55 dB (averaged over a 24-hour cycle) or 50 dB (averaged overnight)<sup>27</sup>.
- 1.89. The UK's Environmental Noise Regulations 2006 require that exposure to environmental noise from major sources of road, rail and aircraft in urban areas is determined by noise mapping. Every 5 years, DEFRA publish noise mapping data which illustrates noise impacts associated with the road and rail network<sup>28</sup>. The most recent round 4 noise maps, based on data from 2021, are available to view online<sup>29</sup>.

<sup>&</sup>lt;sup>26</sup> Brighton & Hove City Council air quality webpages

<sup>&</sup>lt;sup>27</sup> House of Lords, Science and Technology Committee: <u>The neglected pollutants: the effects of artificial light and noise on human health.</u>

<sup>&</sup>lt;sup>28</sup> DEFRA noise mapping data.

<sup>&</sup>lt;sup>29</sup> DEFRA, round 4, road noise online map.

Figure 23 shows the Lden noise indicator, which is an amalgamated day-eveningnight level of noise based on annual averages.



Figure 23. Noise levels in 2021. Source: Road Noise Lden

- 1.90. Using this data, DEFRA identifies 1% of the population affected by the highest noise levels from roads or railways and designates them Noise Important Areas. In Brighton & Hove, Noise Important Areas have been identified along the A23, from The Level to the seafront sections of Lewes Road, Queens Road, and the A259 seafront road.
- 1.91. The external noise that a passenger car can emit is a regulated pollutant. The exact noise level allowed is related to the vehicle's type approval. Details are available on the Vehicle Certification Agency website. The current limits, set in 2016, are 72 dB(A) for most cars. In 2026, the limit for most new passenger cars will be reduced to 68 dB(A).

#### Road casualties

- The council has a record of taking action to reduce casualties on our roads. Safety was the rationale for making many of the city's roads 20mph. An assessment of Brighton & Hove's 20mph limit in 2018<sup>30</sup> concluded that there had been a statistically significant change in collisions and casualties, relative to the 30mph comparator area. The results show a significant reduction in overall collisions (-18%) and overall casualties (-19%).
- 1.93. However, the number of people killed or seriously injured (KSI) on Brighton and Hove's roads has risen slightly over the past 8 years. In Great Britian over the same period the trend has been for a slight decrease in KSIs. Changes in severity reporting mean that serious injury figures from 2016 onwards are not directly comparable with earlier years.
- 1.94. In the three-year period 2021 2023 there were an annual average of 172 KSIs recorded in Brighton & Hove compared with 161 KSIs over the period 2016-2018. In

<sup>&</sup>lt;sup>30</sup> 20mph research study - 2018 - Report by Atkins, AECOM, and Professor Mike Maher (UCL)

Great Britain in the three-year period 2021 - 2023, there was an annual average of 28,835 KSIs compared with 31,493 for the period 2016 – 2018. This is illustrated in Figure 24.

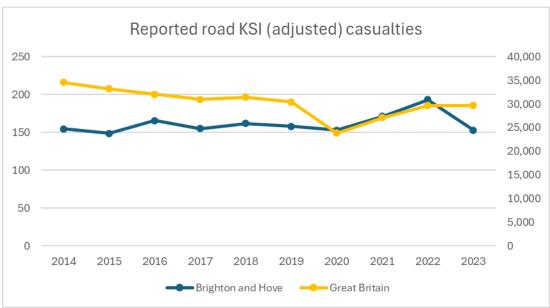


Figure 24. Reported road KSI casualties (source: Road safety statistics)

The location of traffic collisions over the past five years is shown in Figure 25. These incidents predominantly occurred along the main traffic corridors across the city. However, there is a noticeable concentration of collisions in the centre of the city, likely due to the high footfall and traffic volumes in this area.

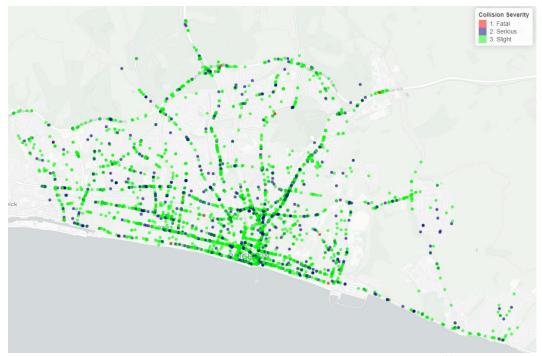


Figure 25. Collision Map in Brighton & Hove between 01/01/2019 and 31/10/2024 31

<sup>31</sup> Sussex Safer Roads Partnership Data Portal

1.96. When police officers attend the scene of a collision, they are able to select up to 6 contributory factors, from a list of 78, that they believe contributed to the collision. These contributory factors reflect the reporting officer's opinion at the time of reporting and are not necessarily the result of an extensive investigation. While s u b i

- 1.97. The most frequently recorded contributory factors when a collision has resulted in a casualty fall into the categories of 'Driver or rider error or reaction' or 'Behaviour or tnexperience'. This includes the specific factors of 'Driver or Rider failed to look properly' and 'Driver or Rider careless, reckless, or in a hurry'. Next on the list of most frequently recorded contributing factors are 'Injudicious action' and 'Impairment er distraction'. All of the above were recorded in 47%-18% of collisions resulting in a casualty in Brighton & Hove in 2023.
- 1.98. This suggests that to make the biggest reductions in road casualties, our focus should be on driver behaviour and designing our roads, particularly junctions and crossings, so that driver errors are less likely to result in a casualty. We will develop and publish a Road Safety Action Plan after further analysis of the available data to set out what actions we believe will result in delivering reductions in casualties.
- 1.99. A general trend in national casualty statistics is that vulnerable road users pedestrians, cyclists, and motorcyclists make up a large proportion of casualties. With Brighton and Hove having higher levels of walking and cycling than the national average<sup>33</sup>, we want to ensure that our focus is on making these forms of travel safe. We have analysed pedestrian and cycle casualties to understand what the trend is within Brighton & Hove.

1.100. The number of pedal cycle KSI casualties has decreased over the past 4 years. From 2015 to 2021, there were between 40-50 casualties a year. In 2022 and 2023, there where under 35 KSIs. The number of annual pedestrian casualties has remained elatively consistent over the past ten years, with an average of around 45 KSI sasualties<sup>34</sup>.

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<sup>&</sup>lt;sup>32</sup> DfT road safety statistics. Data table RAS07

<sup>&</sup>lt;sup>33</sup> DfT walking and Cycling statistics, 2024.

<sup>34</sup> Sussex Safer Roads Partnership Data Portal

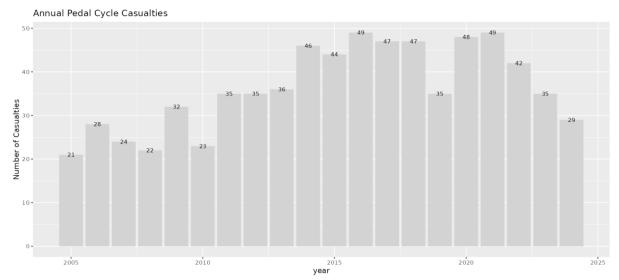


Figure 26. Annual Pedal Cycle KSI up to 2024

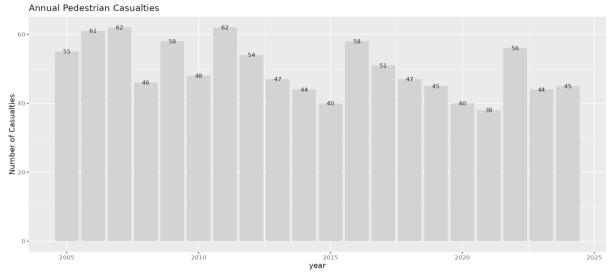


Figure 27. Annual Pedestrian KSI up to October 2024

- 1.101. A more detailed analysis of road traffic accidents focusing on collisions involving cyclists and pedestrians in Brighton and Hove in the last 5 years (01/01/2019 15/10/2024) has been requested from Sussex Safer Roads Partnership for a deeper understanding of any contributory factors of the collisions.
- 1.102. While fatalities involving cyclists remain relatively low, the severity of injuries tends to be higher than the overall average. Cyclists are more likely to be involved in accidents during peak commuting times both morning and afternoon. Pedestrians in Brighton and Hove are notably more likely to sustain fatal or serious injuries in accidents. The main contributory factors of these collisions are 'driver/rider error or reaction'. The police also record 'Pedestrian failure to look' or 'in a hurry' frequently. There may also be under-reporting of slight injuries for these groups.
- 1.103. To understand the relative risk different motor vehicles pose to cyclists and pedestrians, we analysed the number of collisions resulting in a fatality or serious injury to these vulnerable road users alongside the kilometres travelled by the different vehicle types. Figure 28 and Figure 29 illustrate these findings.

1.104. HGVs are more than twice as likely to be involved in a collision resulting in fatality or serious injury to both cyclists and pedestrians, relative to their kilometres travelled. LGVs also pose a greater threat than cars. The risk of motor vehicles being involved in a serious injury or fatality per vehicle-km is higher for people walking than for those cycling. We do not have accurate figures on how many pedestrian and cycle kilometres are made each year, which would be needed to fully assess the relative risk faced by these modes of travel.

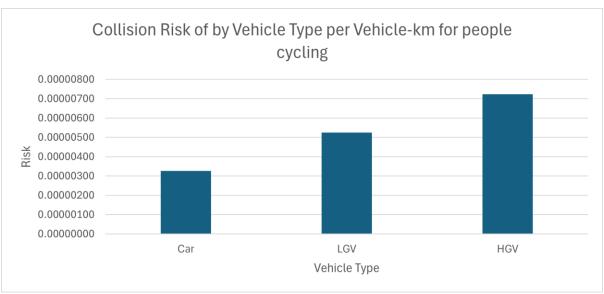


Figure 28. Risk of motor vehicles being involved in fatal or serious injury collisions per vehicle-km for people cycling

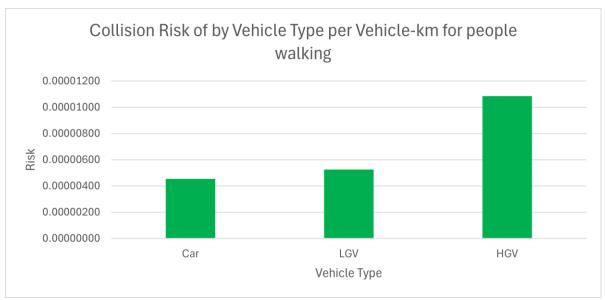


Figure 29. Risk of motor vehicles being involved in fatal or serious injury collisions per vehicle-km for people walking

1.105. Further analysis is required to fully understand how we can reduce collisions and casualties. The draft Our City Transport Plan 2035 makes a commitment to produce a Road Safety Action Plan to focus on how we can reduce casualties.

# 2. Part 2: Understanding travel in Brighton & Hove

- 2.1. The previous part of the evidence base focused on the city's transport infrastructure. This part seeks to understand people's reasons for making journeys and the travel choices they make. Brighton & Hove specific data is much scarcer on this topic than on our transport infrastructure. This part is divided into three sections that consider:
  - leisure and shopping travel
  - commuter travel
  - servicing & deliveries
- 2.2. In the UK, for at least the past 20 years, shopping has generated more trips than any other reason for travelling. The chart below shows the average number of trips according to purpose, based on the 2022 National Travel Survey (NTS)<sup>35</sup>. This is completed by approximately 16,000 individuals in 7,000 English households every year. In 2022, shopping accounted for a quarter of all trips. A further 12% of trips are visiting friends, and a significant number of the 15% of 'other' trips are also likely to include leisure trips. Shopping and leisure are, therefore, the most common reasons for a trip to be made.

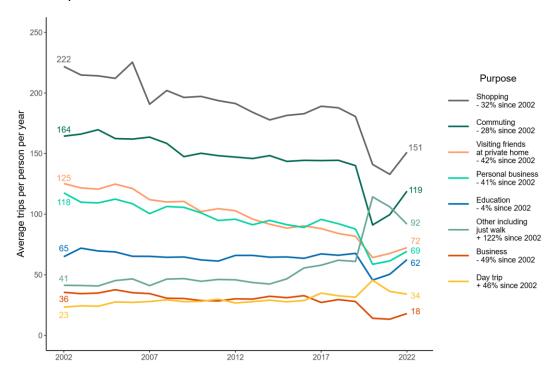


Figure 30. National data on trips per person per year by purpose

- 2.3. Commuting is the second most common trip purpose, responsible for a fifth of all trips. A further 10% of trips are made to visit educational establishments. Both commuting and education-related trips are likely to occur during the morning and evening peak travel periods.
- 2.4. Although day trips make up only 6% of all trips nationally, the tourism sector remains vital to Brighton & Hove's economy. Easy access to Brighton & Hove is an important

<sup>35 2022</sup> National Travel Survey

issue for the economic health of the city. Similarly, while business trips represent just 3% of trips in the NTS, deliveries and servicing are critical to the local economy. Efficient goods delivery supports a thriving business sector.

2.5. To supplement the NTS, we have also commissioned Qa Research to conduct a large-scale household travel survey with a representative sample of residents living across all wards in Brighton & Hove. In total 2,017 surveys were carried out. The primary purpose of this survey was to validate a strategic transport model for the city, but it also affords us useful insights.

## 2.6. Leisure and shopping

- 2.7. Despite it being the most common trip purpose, there is far less data available on shopping and leisure trips than on travel to work, which has a dedicated question within the national census. The data we have on traffic volumes and congestion is not matched to survey data on trip purpose so it is difficult to estimate the impact that leisure and shopping activity has on the performance of the road network.
- 2.8. Ninety three percent of respondents to the council household travel survey, conducted by Qa Research said that they make journeys for 'local shopping / personal business'. The more local nature of these types of journeys was reflected in the modes of transport used, with 'walk' the most common mode. Around a fifth of respondents most often drive a car or van for these types of journeys.
- 2.9. The council has commissioned an analysis to understand which areas of the city have services such as education, health, leisure, and retail within a walkable distance. The output of this analysis is shown in Figure 31, which is a heatmap showing which areas of the city have a concentration of different services within walking distance.
- 2.10. Most areas of Brighton & Hove benefit from proximity to convenience retail and other associated local centre uses. In the council's City Plan a local centre is defined as a retail cluster that typically includes a small supermarket, a newsagent, post office, pharmacy, hot food takeaway and launderette.
- 2.11. Some areas, such as Moulescoomb, Hollingbury and Bevendean, have no identified retail clusters that meet the criteria to be classified as a local centres though local shops and smaller parades do provide for day-to-day services. We could expect that residents of these areas will need to travel further afield to meet their retail needs. To understand each area in detail we are able to draw on comprehensive Urban Characterisation Studies, which forms part of the evidence base for the City Plan<sup>36</sup>.

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<sup>&</sup>lt;sup>36</sup> Brighton & Hove City Council 2009, Urban Characterisation Study

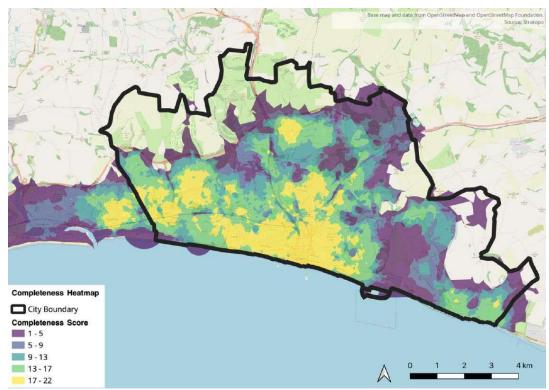


Figure 31. Heatmap of facilities within walking distance. The higher the score, the more complete the provision of services and facilities. Troy Planning + Design in partnership with Stratopo

- 2.12. Respondents to the council household travel survey said that when making journeys for 'city centre shopping / personal business', the most common mode of transport was 'bus' (45%), followed by 'walk' (23%), and responses varied significantly by ward. Those living in more central wards were more likely to walk, and those living in outlying wards were more likely to use a bus or car.
- 2.13. Respondents were most likely to use delivery services for 'other goods, for example, clothes, homeware, with 73% ever receiving deliveries, and this was also the most likely to be received more often than once a week (10% said 2-5 days a week).
- 2.14. Fifty-five percent of respondents reported that they receive deliveries of 'Takeaway food' and 36% receive deliveries of 'groceries (including milk deliveries)'. A smaller proportion of respondents ever receive deliveries of 'Prescriptions' (13%) or 'Subscription boxes (for example, fruit and veg)' (12%).
- 2.15. There were some significant differences by age group, particularly those aged 65+. Respondents in this age group were significantly less likely than other age groups to ever receive deliveries of 'other goods' (50%), 'groceries' (28%), and 'takeaways' (23%). They were, however, significantly more likely than other age groups to receive 'prescriptions' via home delivery (26%).
- 2.16. Overall, 83% of respondents said that they do not currently use pick-up points (as an alternative to home delivery). Of the 17% that do use dedicated pick-up points, walking or wheeling to collect (12%) or driving to collect (3%) were the two most common methods used to collect the goods. There was some demographic variation

- in the usage of pick-up points. Those aged 25-34 are the most likely to use them (26%), and those aged 65+ are the least likely (9%).
- 2.17. Brighton & Hove's city centre is a regional destination, with a catchment extending beyond Sussex for both shopping and leisure trips. Brighton & Hove is also in the top 10 urban destinations for international visitors to the UK with 339,000 visits<sup>37</sup>. Proximity and easy access to Gatwick and London are contributory factors to the city's performance in international tourism.
- 2.18. Research<sup>38</sup> on visitors tends to focus on the number, origin and value of visitors to the city rather than impact on the transport network or visitors' satisfaction with it. However, results from a 2018 survey of visitors<sup>39</sup> show that 42% of all visitors had travelled to Brighton & Hove by private vehicle (car/ van/ motorcycle or motorhome), 54% of all visitors used public transport (a train or coach/bus service) and 2% had arrived in the city as part of a coach tour.
- 2.19. The most popular activity undertaken by visitors was just walking around (81%), followed by going out for something to eat (76%), visiting the beach/seafront (75%), shopping (51%), and visiting a tourist attraction (46%). The main attractions visited were the pier (59%), the Royal Pavilion (29%), and the British Airways i360 (23%). This suggests that walking was the primary mode of transport used by visitors.
- 2.20. Transport in the city was generally positively rated across different modes. 'Ease of finding way around' was scored 8.66 out of 10. Transport in the city cycles and Transport in the city buses both scored over 8. The one exception was 'value for money of parking' which scored 5.27 out of 10.
- 2.21. In 2019, the last year before the impact of Covid, there were 1.67 million visitors who stayed overnight and 10.7 million day visits. Visitors are most likely to come from the London area or the south east and consequently the A23 corridor is the most important for visitors to the city. The city receives a lot of day visitors who tend to travel from the capital at weekends, in the summer months and for big festivals and events.
- 2.22. In 2023, Brighton & Hove attracted approximately 11.8 million visits<sup>40</sup>. Of these, 1.6 million were overnight visitors. While this is below the 2019 figure it still generated £1.3 billion in economic impact and supported more than 23,742 full-time equivalent jobs. Day visitors and conference tourism are particularly strong markets for Brighton & Hove. The city ranks 15th position in the UK for corporate and national association meetings.

#### 2.23. Commuter travel

2.24. In the 2021 census, there were 196,400 people of working age (16-64) in the city. 150,000 of these people were economically active, with 74,500 in full-time employment, 27,200 in part-time jobs, and 30,700 self-employed. A large number of

<sup>&</sup>lt;sup>37</sup> International Passenger Survey 2022

<sup>38</sup> Sussex and Brighton & Hove visitor economy baseline report

<sup>39</sup> Brighton Visitor Survey 2018

<sup>&</sup>lt;sup>40</sup> BRIGHTON & HOVE VISITOR ECONOMY - 2023

- those in full-time employment are likely to have jobs with typical working hours and will be on the move in the AM and PM peak travel times.
- 2.25. There is a significant student population, making up about 12% of the city's residents. This figure is inclusive of those attending the two universities, students in 6th form education, and those attending further education colleges.
- 2.26. While the 2021 census was severely affected by Covid it acts as a useful case study for what the maximum level of working from home could possibly be; 42.7%. However, it does not tell us much about more typical commuting patterns. For this we have to look back to the 2011 census, while acknowledging that the pandemic will have led to some permanent alterations in how people travel. In 2011 only 7.6% of people worked from home in Brighton & Hove. The most popular method of travel to work was by car, at 37.5%, walking, at 20% and bus, at 13.6%.
- 2.27. In 2011 there were 32,000 people commuting into the city to work and 37,000 commuting out<sup>41</sup>. The below heatmap shows job density in the city. The concentration of jobs is highest in Brighton Central, although parts of Hove, the University campuses in Falmer and Shoreham port all have high job densities. These employment sites are trip generators at peak periods.

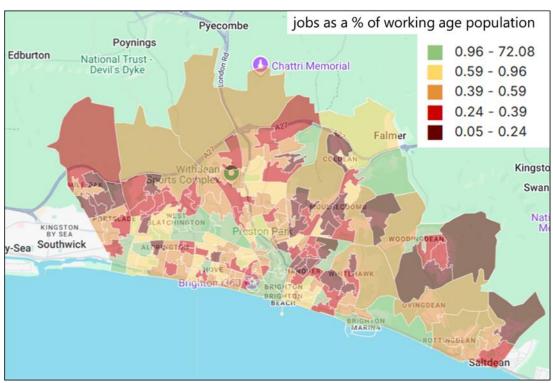


Figure 32 Brighton & Hove Job Density - jobs as a % of working age population

2.28. Figure 33 below illustrates travel-to-work inflows to central Brighton based on the 2011 Census. The thickness of the blue lines represents the number of people commuting from different destinations. The DataShine tool this map is taken from<sup>42</sup> illustrates the large number of journeys made by residents of Brighton & Hove to

<sup>&</sup>lt;sup>41</sup> Brighton & Hove Economic Strategy, Socio-Economic Evidence Base 2018

<sup>&</sup>lt;sup>42</sup> Datashine Commute. Produced by Oliver O'Brien

reach jobs in the city centre. It also shows the catchment area for commuters outside of the city who are far more likely to travel by car or rail to access jobs in the centre.



Figure 33: In commuting destinations to central Brighton produced by Oliver O'Brien

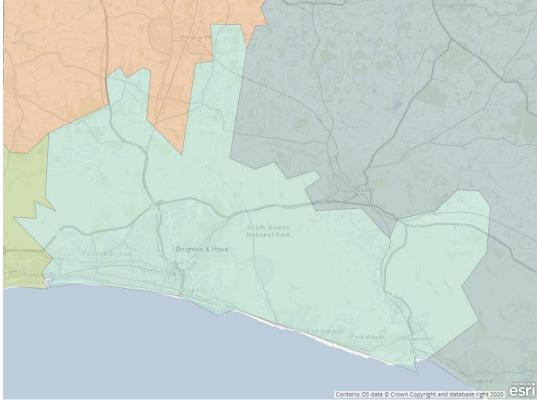


Figure 34 Travel To Work Areas (TTWA) Map

- 2.29. The commuting catchment of Brighton & Hove is shown by Figure 34 which is the Travel To Work Area (TTWA), based on the 2011 census. TTWAs are produced by statistical analysis and illustrate self-contained labour market areas. They represent areas where most people both live and work, and therefore, relatively few commuters will cross a TTWA boundary on their way to work. Brighton & Hove's TTWA is compact. It only reaches north to some parts of Burgess Hill and extends west just beyond the council's administrative boundary. It extends furthest eastwards, reaching as far as Newhaven.
- 2.30. Patterns for out commuting from Brighton & Hove are similar to in-flows, with residents of the city travelling to other local settlements such as Lewes for work. There are a significant minority of residents who commute out to central London, with rail being the predominate mode of travel for these trips.
- 2.31. According to the 2021 Census 37.4% of households within Brighton & Hove have no access to cars or vans, which is higher than England's average of 23.5%. Much of the city has a good level of bus service with 91% of households within 400m of a bus stop with a weekday daytime frequency of 15 minutes or more (BSIP 2021). There are higher rates of working from home, public and active transport use than the average for England. In Brighton & Hove 28.1% commuted via sustainable modes of transport, including 14.3% on foot, 7.1% by bus, 3.8% by bike, 2.5% by train, and 0.4% by taxi.
- 2.32. The council household survey shows that since Covid travel patterns have changed significantly. A quarter of those either employed or self-employed said that they work from home 'every day', whilst a further 30% said they work from home '2 to 4 days a week'. A minority said they work from home 'once a week' or less often, showing that where an individual works from home, it tends to be for a reasonable proportion of the time. Two fifths (38%) said that they 'never' work from home.
- 2.33. This pattern varies by the type of employment. Those in part-time paid employment were the most likely to say they 'never' work from home (58%). Meanwhile, those in full-time self-employment were the most likely to say they work from home 'every day' (37%).
- 2.34. Those working from home at least once a week were then asked to provide more detail about how a typical working week is split between home and their place of work. Levels of home working amongst this group are highest on a Monday and Tuesday (81%), with the proportion then dropping throughout the remaining weekdays to 77% on a Wednesday, 66% on a Thursday, and 65% on a Friday. As would be expected, the proportion working on a Saturday or Sunday is low, with a minority working at home at the weekend (5% on a Saturday and 3% on a Sunday).

### 2.35. Servicing & deliveries

2.36. Servicing and deliveries are hugely important for the economic health of the city.

Detailed city level information about these kinds of trips is lacking so to understand trends that may be affecting Brighton & Hove we have relied on national studies that

are relevant to us. While it is true that more and more shopping is being done online<sup>43</sup> the impact of e-commerce on traffic is less than often imagined. The RAC foundation has concluded that e-commerce has actually had a limited positive effect<sup>44</sup>. A briefing note by the Centre for Sustainable Road Freight<sup>45</sup> also concluded that last-mile delivery of online shopping has resulted in an increase in total commercial freight transport between shops/depots and homes but with a related reduction in car trips and other modes of consumer shopping transport.

- 2.37. With regards reducing the impact of online shopping impacts on the transport network there are actions that can be taken, particularly around reducing failed delivery rates and reducing the frequency of returned goods. Further analysis is needed of the impact of general freight on the road network and how this can be minimised.
- 2.38. Figure 35 shows the upward trend of Light Goods Vehicles (LGVs) registered in the city. There were 11,900 LGVs or vans registered in the Brighton & Hove area in 2023, which is 10.7% of the total fleet. However, most vans (54%) are used for carrying equipment, tools, and materials in the service of tradespeople or builders<sup>46</sup>. Delivery or collection of goods accounts for 16% of van usage, although a greater proportion of mileage as they are more intensively used.

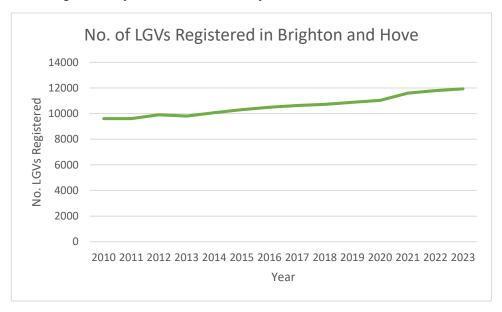


Figure 35. Number of licensed LGVs in Brighton and Hove between 2010 and 2023. Source: <u>Vehicle licensing statistics data tables</u>

<sup>&</sup>lt;sup>43</sup> ONS. E-commerce & ICT activity

<sup>&</sup>lt;sup>44</sup> RAC Foundation. 2017: Implications of Internet Shopping Growth on Van Fleet and Traffic Activity

<sup>&</sup>lt;sup>45</sup> Centre for Sustainable Road Freight. 2021: Online shopping and last mile deliveries.

<sup>&</sup>lt;sup>46</sup> DfT. Statistical Release - Vans. April 2021

# 3. Part 3 Carbon emissions and quantifying reductions

3.1. This part of the document is split into three sections. The context and background section covers what the national requirement for carbon emission reduction is and specific actions required in the surface transport sector. The second section on baseline emissions looks at what future emissions in Brighton & Hove are estimated to be, excluding policies contained in Our Transport Plan 2035. It also discusses what emissions need to be reduced by if national emission reduction targets are to be met. The third section assesses what impact the policies in Our City Transport Plan 2035 will have on reducing emissions. **Error! Reference source not found.** illustrates the emissions assessment processes we have undertaken.



Figure 36. Process for quantifying the impact transport policies will have on carbon emission reduction

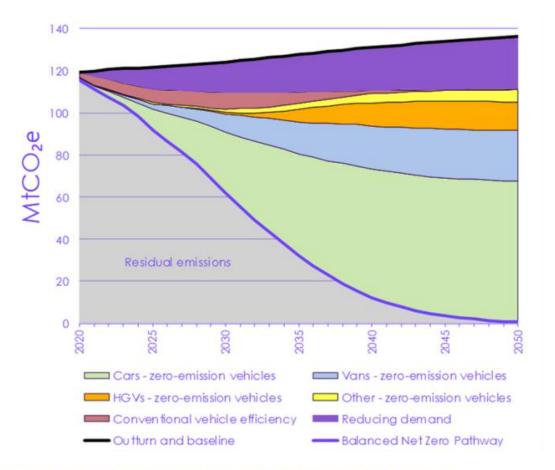
## 3.2. Context and background

3.3. To help meet the UK's legally binding commitments around carbon emission reduction, the 2008 Climate Change Act (amended in 2019) established the Committee on Climate Change (CCC). This expert, independent body advises the UK and devolved governments on meeting greenhouse gas (GHG) emission targets and reports to Parliament on the progress made in reducing them. While the end goal is to achieve Net Zero by 2050, the volume of emissions emitted between now and 2050 is just as important. The UK has agreed a set amount of carbon it can emit over this period, referred to as a carbon budget.

**Greenhouse gases (GHGs) explained.** GHG emissions refers to a group of gases, which includes carbon dioxide, methane, nitrous oxide and others. When present in our atmosphere these GHGs trap heat within it. In this document the term 'carbon emissions' is used to refer to all GHGs. Carbon dioxide is the most prevalent of the GHGs and GHG emissions are reported in units of carbon dioxide equivalent (**CO**<sub>2</sub>**e**). This unit takes account of the different heating impacts of the various GHGs, methane for example traps 28 times more heat over a 20-year period than carbon, and reports them as an equivalent amount of carbon dioxide.

3.4. Since 2008 central government has been required to set carbon budgets for 5-year periods, twelve years in advance. The CCC assists in the budget setting process by producing a report with recommendations. We are now in the 4th carbon budget period, which covers 2023-2027 and allows 1,950MtCO2e to be emitted within that period. The 5<sup>th</sup> and 6<sup>th</sup> carbon budgets have already been published to cover the period up to 2037. For context, in 2019, the total emissions from surface transport in the UK were 113MtCO2e; 22% of the total annual UK GHG emissions.

- 3.5. The CCC has assessed how the UK can stay within its carbon budget and have produced a preferred 'balanced pathway' to Net Zero. They have also published a summary of what measures are required to reduce carbon emissions from the surface transport sector<sup>47</sup>. There are three key actions:
  - transitioning the UK fleet of vehicles so that they are zero emission
  - reducing travel demand and shifting journeys onto lower carbon modes
  - making fossil fuel-powered vehicles more fuel efficient
- 3.6. The chart below illustrates how these three actions will contribute to achieving the balanced pathway to reduce emissions at the national level. Up to 2025, the most significant emissions reductions will be made by reducing demand / achieving modal shift and improving conventional vehicle efficiency. As the proportion of zero-emission vehicles in the UK fleet grows, so does their contribution to reducing emissions. Zeroemission cars and vans will make the earliest and largest impact, with HGVs decarbonising from 2030 onwards.



Source: BEIS (2020) Provisional UK greenhouse gas emissions national statistics 2019; CCC analysis.

Figure 37. Surface Transport GHG emission reductions by area in the balanced pathway scenario. Chart reproduced from the CCC's Sixth Carbon Budget: Surface Transport.

<sup>&</sup>lt;sup>47</sup> The Sixth Carbon Budget, Surface Transport. CCC

- 3.7. While carbon budgets at the national level are well established, they do not exist for individual local authority areas. Our City Transport Plan 2035 is the first transport strategy we have written that includes an estimate of local carbon emissions and an estimate of the impact our policies will have on reducing them. To do this, we have used a tool commissioned by England's sub-national transport bodies (STBs) specifically for this purpose: the Carbon Assessment Playbook (CAP), which was launched in September 2024.
- 3.8. Guidance on how local authorities should quantify carbon emissions for local transport planning was published in August 2025<sup>48</sup>. Chapter 3 of this guidance,on estimating current and future emissions at an area-wide level refers to the CAP; 'In most regions, area-wide estimates of user carbon have already been prepared at a regional level. Where this is the case, authorities can obtain this and will not need to undertake the analysis themselves. Tools and resources also exist to help local authorities estimate infrastructure emissions across their activities.'

## 3.9. Brighton & Hove Baseline Emissions

3.10. There are different ways of measuring GHG emissions. The CAP tool measures territorial emissions, those generated within the administrative boundary of the council. The territorial focus means that transport activity by residents of Brighton & Hove, which occurs outside the boundaries of the council, is excluded. The CAP tool limits the scope of emissions to only include those elements of the transport network that we have direct influence or control over; the road network. Emissions from the use of the rail lines within Brighton & Hove are outside of our influence. For the avoidance of doubt, emissions that are out of scope are listed in Table 6, along with the responsible body.

| Excluded emissions                 | Reason                   | Responsible body |
|------------------------------------|--------------------------|------------------|
| Travel by Brighton & Hove          | Outside of the council   | DfT              |
| residents is outside of the        | territorial area and     |                  |
| council's administrative area.     | control.                 |                  |
| From the manufacture of vehicles   | Outside of the council   | No single        |
| and fuel used within the council's | territorial area and     | organisation.    |
| administrative area.               | control.                 |                  |
| From the rail network within       | Outside of the council   | DfT              |
| Brighton & Hove.                   | control                  |                  |
| From the maintenance/repair of     | To be assessed in future | The council      |
| the local road network.            | Highway Asset            |                  |
|                                    | Management Plan          |                  |
|                                    | updates.                 |                  |

Table 6. Out-of-scope Emissions, Corresponding Reasons and responsible bodies

3.11. Underpinning the data in the CAP tool are estimates produced by the Department for Energy Security and Net Zero (DESNZ) of CO<sub>2</sub> emissions attributable to the local road network for each local transport authority. This estimate is based on the observed mileage travelled, the fleet composition, and fuel consumption. A fuller

<sup>&</sup>lt;sup>48</sup> Local Transport quantifiable carbon guidance

explanation of the methodology is available in the relevant technical note<sup>49</sup>. The baseline year used in the CAP tool is 2019 to avoid the disruption caused by the Covid-19 pandemic.

- 3.12. The CAP tool shows historic GHG emissions from vehicles using the council's road network, up to 2019. It also contains three future scenarios of what annual emissions up to 2050 could be. The main variable between the three scenarios is the rate at which EVs replace conventionally powered vehicles. The rate of uptake of EVs varies greatly across the UK, meaning that road-based emissions will fall much faster in some areas than others. Sales of EVs in the Brighton & Hove area tend to be around the national average<sup>50</sup>.
- 3.13. In this document, we have chosen to use just one of these scenarios as our future baseline (known as localised ZEV uptake within the CAP) as it best reflects current national policies, such as the Zero Emission Vehicle (ZEV) mandate. As with any modelling of future events, the future baseline is not a prediction of what will happen, but rather a guide to what is probable.

The Zero Emission Vehicle mandate came into effect in January 2024. It requires car manufacturers to sell a minimum percentage of electric vehicles each year or face financial penalties. In 2024 22% of manufacturer's new car sales and 10% of their van sales had to be zero emission. This target rises each year so that by 2030 80% of new car sales and 70% of new van sales have to be zero emission. By 2035 100% of car and van sales need to be zero emission.

- 3.14. It should be noted that up until 2023, the uptake of EVs within Brighton & Hove was below the projections used in our future baseline scenario. Under the future baseline, 5% of the car and van fleet using our roads were projected to be zero-emission in 2023. However, only 2% of vehicles registered in Brighton & Hove in 2023 were zero-emission. With approximately 104,300 vehicles registered in Brighton & Hove, this means that there were around 3,100 fewer zero-emission vehicles registered than projected. We anticipate that the ZEV mandate will greatly increase the sales of zero-emission vehicles. Full year data on local vehicle registrations have yet to be released for 2024, but we will continue to monitor uptake data to ensure that our chosen future baseline is the most appropriate to use.
- 3.15. While the CAP includes future baseline scenarios that take into account the varying uptake of EVs in different areas, it does not include localised carbon pathways that do the same. Instead, it scales the CCC national balanced pathway for road-based emissions to each local area. This acts as an indicative trajectory of how quickly road-based emissions would need to fall if following the same pace as that of the national pathway. Some local authority areas could be expected to overperform against the national balanced pathway, while others underperform. Without localised carbon reduction pathways that coordinate the variable emissions reductions across regions, we do not have specific carbon emission reductions that we need to achieve.

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<sup>&</sup>lt;sup>49</sup> 2005-2020 UK local and regional greenhouse gas emissions technical report

<sup>&</sup>lt;sup>50</sup> DfT Vehicle licensing statistics

3.16. Figure 38 below shows Brighton & Hove's historic GHG emissions up to 2019, our projected future baseline of emissions, and a locally scaled version of the CCC national balanced pathway, which acts as a rough guide of where emissions need to be. It illustrates that more than 400ktCO<sub>2</sub>e of GHG emissions were produced by vehicles within Brighton & Hove in 2005. While there have been some fluctuations, the overall trend has been downward, reaching 329ktCO<sub>2</sub>e in 2019.

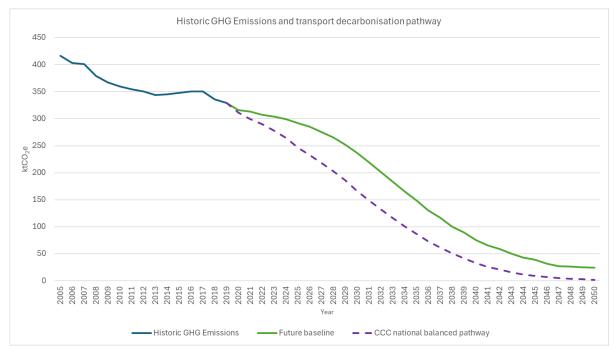


Figure 38. Past and projected emissions from vehicles using the road network within Brighton & Hove.

- 3.17. The future baseline scenario anticipates that carbon emissions will continue to decrease, but the reductions will not be enough to meet the locally scaled national balanced pathway to Net Zero. By 2035, emissions are projected to drop to 149ktCO<sub>2</sub>e under the future baseline scenario. If local emissions within Brighton & Hove were to exactly mirror the rate of reduction required at the national level, then by 2035 local emissions would need to be 87ktCO<sub>2</sub>e.
- 3.18. Figure 39 shows the cumulative carbon emissions over the period 2019 2050 under both the future baseline and locally scaled CCC national balanced pathway. Using the balanced pathway as a guide, Brighton & Hove's approximate carbon budget from road transport emissions would be around 3,978ktCO<sub>2</sub>e. between 2019-2050. Under the future baseline scenario, we are projected to emit 5,300ktCO<sub>2</sub>e, which is 1,322ktCO<sub>2</sub>e more. To greatly reduce this gap, additional policy measures are needed at both the national and local levels.

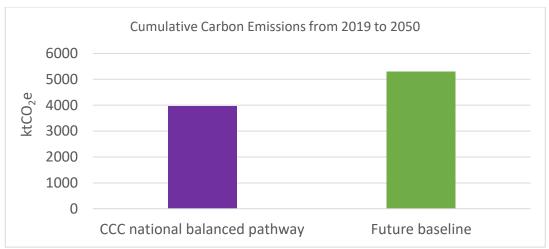


Figure 39. Cumulative carbon emissions from 2019 to 2050

## 3.19. Quantifying emissions reductions of local policy measures

- 3.20. This section presents our assessment of the impact that policies contained in Our City Transport Plan 2035 will have on reducing emissions. As noted in paragraph 3.5 the CCC has set out three key actions required to reduce carbon emissions from the surface transport sector. Firstly, transitioning the UK fleet of vehicles so that they are zero emissions. Secondly, reducing travel demand and shifting journeys onto lower-carbon modes. And thirdly, making fossil fuel-powered vehicles more fuel efficient.
- 3.21. National policies, such as the ZEV mandate, will be instrumental in delivering these three measures, but local policies also have a role to play. The council can support people switching to zero-emission vehicles by providing access to electric vehicle charging infrastructure. This is essential for those who do not have access to offstreet parking and who will rely on public chargers to refuel. For larger vehicles, like buses and trucks, it is unclear if the route to Net Zero will be electrification or an alternative, like hydrogen. However, for cars and vans, electrification is the most likely route, with many EV models already available. The council's Electric Vehicle Charging Plan sets out the details of how we will provide charging infrastructure.
- 3.22. Reducing travel demand can be achieved through measures such as increased homeworking. Through management of the roads under our control, the council can also influence people's travel choices and make choosing low-carbon modes, such as public transport, walking, and cycling, easier. The CCC has concluded that these measures are necessary to achieve Net Zero<sup>47</sup> and stay within the national carbon budget. Improving walking and cycling infrastructure, along with bus priority measures, are proven ways for transport authorities to enable more people to use these modes.
- 3.23. The third key action, making fossil fuel-powered vehicles more efficient, is a measure that will largely be driven by central government regulation and industry. Over the past two decades, vehicle fuel efficiency has improved, but since 2017, average vehicle emissions have increased. The CCC attributes this to the increase in purchases of larger vehicles, such as SUVs<sup>51</sup>. Through our parking policies, it is possible that the council could incentivise the purchase of smaller, lighter vehicles.

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<sup>&</sup>lt;sup>51</sup> Sector Summary: Surface Transport, page 62

3.24. The CAP includes a Policy Builder tool that contains 29 different types of transport interventions. In the tool, the city is split into 33 zones, known as medium level super output areas (MSOA), as shown in Figure 45. The areas are categorised into inner urban and city suburban based on the typical transport usage profile of households within the MSOA.

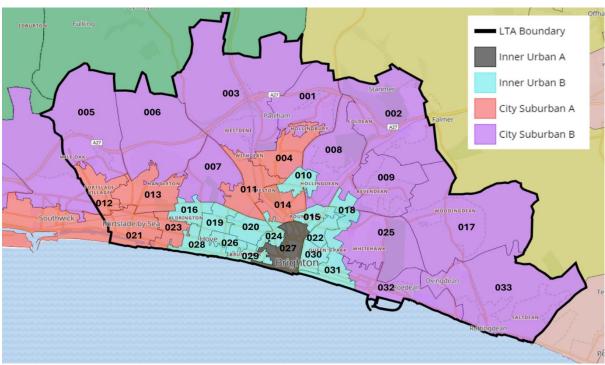


Figure 40. MSOA-sized Zones within the council

- 3.25. In the Policy Builder tool, we can build up a package of interventions. For each intervention, we can choose where (geographical scope), when (build profile) and at what intensity the different interventions would be implemented up until 2050. The tool then estimates what the cumulative impact of the chosen policy measures will be.
- 3.26. The 29 interventions are shown in Table 7 below. One limitation of the Policy Builder tool is that the list of policy measures is not exhaustive. For example, there are no measures that will impact van freight emissions, such as freight consolidation centres.

| Category           | Intervention                                  |
|--------------------|---|
| Active travel      | Improved pedestrian infrastructure            |
| Active travel      | Improved cycling infrastructure               |
| Active travel      | (e-)Mobility hire schemes                     |
| Behavioural change | Area-wide travel planning/mobility management |
| Behavioural change | EV car clubs                                  |
| Behavioural change | Incentive-based apps                          |
| Behavioural change | Campaigns for a switch to LEV fleets          |

| Behavioural change                     | Business Travel Plans                                     |
|--|---|
| Behavioural change                     | Support for car sharing                                   |
| Behavioural change                     | School Travel Plans                                       |
| Integrated planning policy             | 20-Minute neighbourhoods                                  |
| Integrated planning policy             | High-density developments                                 |
| Low-emission vehicles                  | Low-emission public transport fleets                      |
| Low-emission vehicles                  | EV Charging infrastructure                                |
| Low-emission vehicles                  | Support EV uptake in corporate fleets                     |
| Parking, charging & traffic management | Road user charging/tolls                                  |
| Parking, charging & traffic management | Off-street parking measures                               |
| Parking, charging & traffic management | On-street parking measures                                |
| Parking, charging & traffic management | Workplace parking levy                                    |
| Parking, charging & traffic management | Low Traffic Neighbourhoods (LTNs)                         |
| Parking, charging & traffic management | Cordon-based charges and restrictions                     |
| Public transport                       | Bus priority measures                                     |
| Public transport                       | Improved bus/LRT frequency                                |
| Public transport                       | Mobility hubs   |
| Public transport                       | Reduced public transport fares                            |
| Public transport                       | Demand-responsive transport (DRT)                         |
| Public transport                       | Extended public transport network                         |
| Public transport                       | New rail stations/line opening                            |
| Technology                             | Integrated ticketing, information & Mobility as a Service |

Table 7. The 29 interventions in the CAP Policy Builder tool

3.27. We created three packages of interventions in the Policy Builder tool to represent different scenarios. These are listed in Table 8. The Business-as-Usual scenario (BaU) is based on existing commitments that have been made, excluding any new proposals in Our City Transport Plan 2035. In contrast, the Do Max scenario attempts to understand what impact local policies would have if we committed to doing everything possible to reduce carbon emissions. It is intended to illustrate what the limit is to what we can achieve locally. The Our City Transport Plan 2035 scenario is based on the policies contained in the proposed plan.

| Scenarios                    | Assumptions  | Number of interventions applied |
|------------------------------|--|---------------------------------|
| Business as Usual (BAU)      | Current levels of funding and a similar level of intervention in the recent past | 15                              |
| Our City Transport Plan 2035 | Some increased funding and a greater level of intervention                       | 27                              |
| Do Max                       | Generous resources and GHG reduction are the overriding priority                 | 28                              |

Table 8. The council Transport Policy Scenarios and Assumptions

3.28. Each scenario is underpinned by a set of assumptions about which interventions will be implemented, where, how intensely, and over what time period. Table 9 shows a

worked example for the intervention road user charging/tolls to demonstrate our approach.

| Scenarios                          | Assumption  | Geographical<br>Scope | Build<br>Profile | Intensity |
|------------------------------------|---|-----------------------|------------------|-----------|
| BAU                                | No road user charging is introduced.  | NA                    | NA               | NA        |
| Our City<br>Transport<br>Plan 2035 | The UK govt. introduces a road user charging scheme to replace other road taxes /fuel duty. | Whole city            | 2040-2042        | 100       |
| Do Max                             | The UK govt. introduces a road user charging scheme to replace other road taxes /fuel duty. | Whole city            | 2030-2032        | 100       |

Table 9. Assumptions used for intervention on road user charging/tolls.

- 3.29. In the BAU scenario, we assume that there is no introduction of road user charging. In the Our City Transport Plan 2035 and Do Max scenarios, we make the assumption that road user charging would only work as a nationwide scheme that replaces existing taxes on vehicles such as fuel duty. In the Do Max scenario, we assume that the date of implementation is at the earliest feasible date, 2030-2032. In the Our City Transport 2035 scenario, we assume that charges are introduced in 2040-42.
- 3.30. This worked example illustrates how the Policy Builder tool necessitates us to make assumptions about possible future scenarios. Assumptions used for specific interventions in the Our City Transport Plan 2035 scenario should not be interpreted as policy commitments. They only represent one possible way that policies could be implemented.
- 3.31. In the case of a national road user charging scheme, it is not something that the council has the power to implement. Our assumptions regarding road user charging are based on it being a possible future measure and that if it were implemented, it would make sense to do so at the national level rather than individual cities or regions bringing forward their own.
- 3.32. Because the list of policy interventions in the Policy Builder tool is not exhaustive, the CAP includes a function that allows us to address this by applying estimates of what impact policies may have on areas that are not covered in the tool. These are referred to in the CAP as emission levers.
- 3.33. We have applied 3 emission levers in the dashboard:
  - urban freight solutions modifying HGV and LGV movements within the urban area
  - HGV fuel composition assessing the impact of accelerating reduction in internal combustion engine-powered HGVs
  - car speed on the Strategic Road Network considering the effect of a reduction in car speed across all types of vehicles
- 3.34. In the CAP tool, freight vehicles are projected to account for 34.34% of road user emissions by 2050. This represents a significant opportunity for emission reduction that could be addressed. By applying the above emission levers, freight vehicles'

- emissions are projected to decrease from 46.57ktCO<sub>2</sub>e to 3.48ktCO<sub>2</sub>e, with their share of overall emissions falling from 34.34% to 19.80%.
- 3.35. Figure 41 and 42 show the outputs of the modelling exercise using the Policy Builder tool. The graph in Figure 41 shows the annual reduction in carbon emissions under the modelled scenario and Figure 42 shows the cumulative carbon emissions from 2019 to 2050 under each scenario, compared with the CCC national balanced pathway scaled to local emissions.
- 3.36. Under the future baseline scenario emissions from use of roads within Brighton & Hove are projected to be 5,300 ktCO2e between 2019 2050. Under the locally scaled CCC balanced pathway Brighton & Hove's carbon budget for the same period is 3,978 ktCO<sub>2</sub>e, a difference of 1,322 ktCO2e.
- 3.37. It is clear that all three policy scenarios we have modelled, even the BaU scenario which would be a continuation of our existing policies, will have a significant impact on carbon emissions. However, even the do maximum scenario where emissions are projected to be 4,557 ktCO2e, will not meet those of the locally scaled CCC balanced pathway.

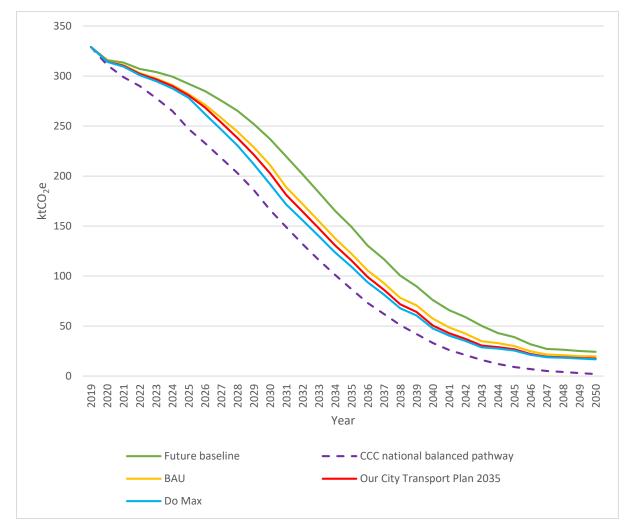


Figure 41. Estimated carbon emission reductions under three future policy scenarios

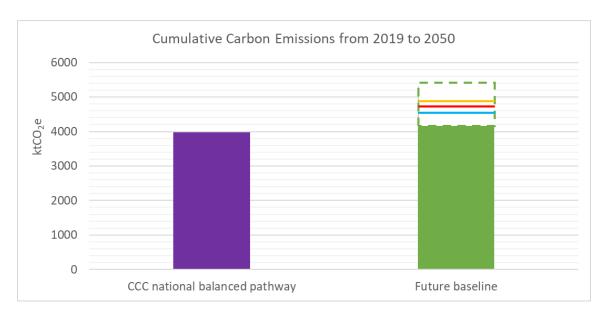


Figure 42. Cumulative carbon emissions from 2019 to 2050

3.38. What this finding means will depend on what other local authorities' findings are. It may be that some are going beyond the locally scaled CCC balanced pathway, to counteract those areas not reaching it. However, if the majority of local authorities are in the same position as us then a discussion with central government will need to take place to understand what additional actions are required and how they will be implemented.

# 4. Part 4: Policy Alignment Review

4.1. Table 10 lists relevant policies and guidance that has been considered in the creation of Our City Transport Plan 2035.

| Publishing body, date: policy                                  | Scope    | Alignment   |
|--|----------|---|
| DfT, Integrated National Transport Strategy                    | National | N/A - Currently being formulated after a call for ideas.  |
| DfT, 2017: Investment Strategy                                 | National | There is good alignment between Our City Transport Plan the Objectives of the DfT Investment Strategy and Our vision, explicitly aligns with the four objectives of the Investment Strategy particularly the objective of creating a more reliable, less congested and better-connected transport network and ultimately making Brighton & Hove a more attractive place for business, trade and invest.   |
| DfT, 2017: Cycling & Walking Investment Strategy               | National | There is excellent alignment between these objectives and those in Our City Transport Plan 2035. Similar to the objectives outlined in the Cycling and Walking Investment Strategy, our focus is on creating well-maintained streets and pavements, expanding active travel choices, and delivering a safe, inclusive, and integrated transport system. These efforts aim to encourage more residents to adopt active travel modes and reduce the number of KSI cyclists and pedestrians. |
| DfT, 2021: <u>Transport Decarbonisation Plan</u>               | National | There is good alignment with the Transport Decarbonisation Plan and Our City Transport Plan has been completed using the Carbon Assessment Playbook tool to quantify the impact of our policies.  |
| DfT, 2018: Inclusive Transport Strategy                        | National | There is excellent alignment between our policies and the Inclusive Transport Strategy. Our approach includes improving pavement and road design for better accessibility, enhancing bus and taxi services, and addressing transport-related social exclusion. We aim to work collaboratively with Brighton & Hove Buses to provide more accessible services with key destinations across the city.   |
| DfT, 2019: Future of Mobility: Urban Strategy                  | National | We aim to leverage technology to improve travel management and reduce congestion through enhanced data collection and enforcement. Recognising electric and hydrogen power as key solutions for decarbonisation, we also see the potential of innovative mobility hubs in creating a more integrated transport network. The council remains adaptable to future advancements in technology and shifts in consumer adoption.   |
| DfT, 2020: Gear Change – a bold vision for cycling and walking | National | The document highlights the benefits of cycling and walking in relation to health, wellbeing, congestion, environmental and air quality, economy. By providing a better-connected transport network with well-maintained streets, pavements, and cycling  |

|  |          | infrastructure and by encouraging residents to shift to active travel, we can improve public health and wellbeing, enhance air quality, reduce road congestion, and boost shopping footfall.   |
|--|----------|--|
| DfT, 2021: Bus Back Better   | National | The strategy focuses on making buses more frequent, faster, reliable, cheaper, and comprehensive. Our vision aligns excellently with this by enhancing bus reliability and speed through dedicated bus priority corridors, improving connections to the suburbs and beyond, and providing better bus service information.  |
| DfT, 2022: Future of Freight Plan  | National | While not all of the actions of the Freight plan are for local authorities to deliver there is good alignment in the area of Net Zero and decarbonising transport.   |
| DfT, 2022: <u>UK Electric Vehicle Infrastructure</u><br><u>Strategy</u>                            | National | There is excellent alignment between our plan and this strategy with a strong focus on the challenge of supporting householders without off street parking to be able to switch to EVs.  |
| DfT, 2023: The Plan for Drivers  | National | We share the goal of providing smoother journeys and supporting the transition to zero-emission driving. Our 'seek and fix' programme helps identify and repair defective carriageways efficiently.  |
| DfT, 2024: National Networks National Policy Statement   | National | The statement focuses on maintaining network performance, meeting customer needs, supporting economic growth, ensuring resilience in networks, advancing netzero priorities, and enhancing safety. Our key objectives align with these aims by reducing road congestion, maintaining streets and pavements, supporting the transition to low and zero-emission vehicles, and leveraging technology for more effective road management. |
| DfT, 2024: National Bus Strategy: 2024 Bus Service Improvement Plans                               | National | The strategy focuses on making buses more frequent, faster, reliable, cheaper, and comprehensive. Our vision aligns with this by enhancing bus reliability and speed through dedicated bus priority corridors, improving connections to the suburbs and beyond, and providing better bus service information.  |
| HM Treasury, 2020: The National Infrastructure Strategy  | National | The strategy aims to decarbonise the economy and adapt to climate change by electrification of vehicles and advancing newer technologies such as carbon capture and low-carbon hydrogen. We also focus on facilitating the transition to low and zero-emission vehicles and recognising electric and hydrogen power as a viable solution.  |
| Defra, 2019: Clean Air Strategy  | National | The strategy prioritises protecting public health by reducing emissions, including those from transport. We aim to support the transition to low and zero-emission vehicles and recognise electric and hydrogen power as a viable solution.  |
| Department for Levelling Up, Housing and Communities, 2022: <u>Levelling Up the United Kingdom</u> | National | Levelling Up aims to provide everyone with the opportunity to thrive by improving transport, digital connectivity, health, wellbeing, and so on. One of its key missions is to enhance transport networks in all major urban centres and improve local public  |

|   |          | transport connectivity across the country, closer to London's standards. Our vision aligns with this striving for a better-connected city that enhances quality of life in a healthy, inclusive, and sustainable city.  |
|---|----------|---|
| DfDCMS, 2022: <u>Digital Strategy</u>   | National | It aims to drive economic growth and innovation by enhancing digital infrastructure, supporting tech businesses, improving digital skills, and strengthening cybersecurity. While not directly related to transport, advancements in digital technology may reduce the need to travel by enabling more remote work. The City Plan outlines how we support the supply and maintenance of efficient digital and telecommunication infrastructure across the city. |
| Department for Energy Security and Net Zero, 2023: Carbon Budget Delivery Plan                        | National | This plan outlines how the government aims to meet its legally binding carbon budgets and progress toward net zero by 2050. It includes policies to accelerate the transition to clean energy, support low-carbon transport, and more. As part of the national effort, we have adopted the newly launched Carbon Assessment Playbook to evaluate the carbon impact of various interventions, helping to guide decision-making toward lower emissions.           |
| Department for Culture, Media and Sport, 2023: Get Active: A Strategy for sport and Physical Activity | National | This strategy sets out how the government's commitment is to ensuring everyone has the opportunity to be active. Aligning with this goal, we focus on providing safe and inclusive active travel choices to encourage more people to incorporate physical activity into their daily journeys.   |
| Ministry of Housing, 2025: National Policy Framework  | National | It provides a framework for locally prepared plans that can provide for housing and other development sustainably. Our City Transport Plan 2035, alongside the City Plan, sets out a vision and strategic approach for delivering sustainable transport and development in the city.  |
| Defra, 2023: The Air Quality Strategy for England   | England  | It defines local authorities' powers, responsibilities, and actions to improve air quality for communities. Our focus on reducing road congestion, promoting low and zero-emission vehicles, increasing public transport use, and encouraging active travel aligns with these goals to create cleaner air in the city.  |
| Public Health England, 2020: PHE Strategy   | England  | The strategy aims to enhance safety, prevent poor health, reduce health inequalities, and support a strong economy. Encouraging people to incorporate physical activity into their daily travel can improve overall health and wellbeing.   |
| TfSE, 2020: <u>Transport Strategy</u>   | Regional | This strategy has been referred to throughout the document and schemes in it included within this Plan.   |
| TfSE, 2023: Strategic Investment Plan   | Regional | It outlines the region's priorities for transport infrastructure and investment to support sustainable economic growth. Some of the proposed schemes in this plan will  |

|   |                 | enhance the connectivity of the city to other areas, improving access to key               |
|---|-----------------|--|
|   |                 | destinations and supporting regional development.  |
| TfSE, 2018: Economic Connectivity Review              | Regional        | It emphasises the importance of improving transport links to boost economic                |
|   |                 | performance and ensure greater resilience in the region. We share this goal of             |
|   |                 | improving our transport and travel network to ensure people can move around safely,        |
|   |                 | sustainably, and easily.   |
| Brighton & Hove City Council, 2023: The               | Local           | Our vision is for Brighton & Hove to be a city to be proud of, a healthy, fair, and        |
| Council Plan  |                 | inclusive city where everyone thrives. Our City Transport Plan 2035 was developed to       |
|   |                 | help achieve this vision by shaping a sustainable and accessible transport future.         |
| Brighton & Hove City Council, 2023: The               | Local           | They are development plans for the city and a key plan to deliver the transport goals      |
| City Plan part 1 & part 2                             |                 | in our City Transport Plan 2035.   |
| Brighton & Hove City Council, 2018:                   | Local           | It outlines a strategic pathway towards a more competitive, productive, fairer and         |
| Economic Plan 2024-2027                               |                 | greener economy. Our City Transport Plan 2035 supports delivery of this vision by          |
|   |                 | reducing congestion on our roads and aiming to create a more sustainable, inclusive        |
|   |                 | and accessible transport network.  |
| Brighton & Hove City Council, 2019: Joint             | Local           | This strategy envisions that everyone in the city will have the best opportunity to live a |
| Health & Wellbeing Strategy                           |                 | healthy, happy and fulfilling life. Our City Transport Plan 2035 supports this by          |
|   |                 | encouraging active travel, helping people stay more active and healthier.                  |
| Brighton & Hove City Council 2024-2034:               | Local           | This strategy envisions a more active, healthier city. Our City Transport Plan 2035        |
| Sport and Physical Activity Strategy                  |                 | supports this goal by enhancing pavements and cycling facilities and delivering new        |
|   |                 | walking and cycling infrastructure to encourage active travel.                             |
| Brighton & Hove City Council, 2023:                   | Local           | The council envisions a welcoming, inclusive and accessible city, striving to go beyond    |
| Accessible City Strategy                              |                 | legal minimum when providing barrier-free services. Our City Transport Plan 2035           |
|   |                 | aligns with this vision, aiming to create a truly inclusive transport system.              |
| Brighton & Hove City Council, Air Quality             | Local           | Our plan is strongly focused on improving air quality and reducing carbon emissions        |
| Action Plan 2022-27                                   |                 | with the objective of facilitating the uptake of low and zero emission vehicles.           |
| Brighton & Hove City Council, 2030 Carbon             | Local           | Our plan is strongly focused on improving air quality and reducing carbon emissions        |
| Neutral Programme                                     |                 | with the objective of facilitating the uptake of low and zero emission vehicles.           |
| Table 10 Relevant Policies and Guidance considered in | Our City Transn | ort Plan   |

Table 10. Relevant Policies and Guidance considered in Our City Transport Plan

# 5. Part 5: Challenges and Summary

5.1. While there are a variety of transport challenges facing the city this evidence base has been used to identify the priorities that will be addressed in Our City Transport Plan 2035.

#### Challenge 1: Enabling more people to live safer, healthier and more active lives

- 5.2. Each year over the past decade the number of people killed and seriously injured on our roads has not reduced and remains around 150 per year. This is unacceptably high. Vulnerable road users, those walking, wheeling, cycling and on motorbikes are at most risk. We believe this number can and should be reduced.
- 5.3. Related to improving safety is encouraging more people to live active lives because of the health benefits this will being. The council's Sport and Physical Activity Strategy sets out the evidence on the levels of inactivity in the city. For example, less than 50% of children under 16 in the city meet recommended activity guidelines each day. It also sets the objective of creating active environments, which this objective in Our City Transport plan 2035 supports.

#### Challenge 2: Reduce congestion on our roads

5.4. Figure 13 illustrates that the average delay on local A Roads within Brighton & Hove is among the worst in the country. This is an important challenge to prioritise and tackle because reducing congestion and improving the speed of journeys within the city underpins the economic growth of the city and peoples experience of whether this is a good place to live and visit.

#### Challenge 3: Supporting the transition to zero and ultra-low emission vehicles

- 5.5. This challenge focuses on a specific measure that will be highly effective in both improving air quality and reducing carbon emissions. The council's Air Quality Action Plan 2022-27 sets out what the health impacts of air pollution are and why it needs to be addressed. The threat of climate change and need to kerb GHG emissions is also set out elsewhere, such as the DfT's Transport Decarbonisation Plan.
- 5.6. It is in the Transport Decarbonisation Plan that central government has identified the role local authorities have to play in facilitating the shift to electric vehicles, particularly for households that lack access to off-street parking.

#### Challenge 4: Creating a transport network that is more inclusive

5.7. The Council Plan 2023-2027 and Accessibility Strategy set out the council's aim to ensure that the city is an inclusive place for all. The evidence presented here is clear that accessing key services is more difficult for those who are less well-off and live in more suburban parts of the city. The evidence is also clear that disabled people make fewer trips and find it harder to access transport. Making a more inclusive transport network has therefore been identified as a challenge that is a priority.

#### Challenge 5: Maintaining our roads and managing them as efficiently as possible

5.8. Surveys we have commissioned into the condition of our footways and roads shows clearly that the funding which has been allocated to their upkeep over the past 10 years has been inadequate to maintain them. If this continues the state of our streets will continue to worsen. It is basic and fundamental to the good functioning of the city that our streets are kept in a good condition, but securing the finance to do this will be a challenge.

# 6. Glossary

AQMA - Air Quality Management Areas

Brighton & Hove City Council – The council

**BSIP** – Bus Service Improvement Plan. A plan setting out improvements up to 2025 and backed by over 27m of central government funding.

**CAP** – Carbon Assessment Playbook

**CCC** – Committee on Climate Change. An independent, statutory body established by the Climate Change Act 2008. Its purpose is to advise central government on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.

**DESNZ** – Department for Energy Security and Net Zero

**GHG** - Greenhouse Gases

**HGV** -Heavy Goods Vehicle

KSI - Killed or seriously injured

 $ktCO_2e$  – Kilotons of carbon dioxide equivalent. A standardised measure of greenhouse gases, which includes carbon dioxide, methane, nitrous oxide and so on, and expresses the impact they have as an equivalent amount of carbon dioxide.

**LGV** – Light Goods Vehicle

**LCWIP** – Local Cycling and Walking Infrastructure Plan

MRN - Major Road Network

**MtCO2e** – Million tons of carbon dioxide equivalent. A standardised measure of greenhouse gases, which includes carbon dioxide, methane, nitrous oxide and so on, and expresses the impact they have as an equivalent amount of carbon dioxide.

**NHT** – National Highways and Transport. An organisation which runs a public satisfaction survey. In 2023 111 local authorities participated. In this report tables show the council's score along with a colour indicating how well we performed against other local authorities.

Colour indicating the council's performance is in the top 25% or quartile

Colour indicating the council's performance is in the second quartile and above average

Colour indicating the council's performance is in the third quartile and below average Colour indicating the council's performance is in the bottom 25% or quartile

NO<sub>2</sub> – Nitrogen Dioxide

**NSL** – National Speed Limit

**NTS** – National Travel Survey. Annual survey of approximately 16,000 individuals in 7,000 English households.

**PM** – Particulate Matter

**SRN** – Strategic Road Network

**STB** – Sub-regional transport bodies

TfSE -Transport for the South-East

TTWA - Travel To Work Areas

**ULEZ** – Ultra-low Emission Zone

**ZEV** – Zero Emission Vehicle