Glasgow City Council

City Development Plan 2

Background Report

Infrastructure Audit – Transport

March 2024, Updated February 2025

Transport Infrastructure Audit

Requirement for an updated Transport Infrastructure Audit

This Transport Infrastructure Audit was first produced for submission as part of the CDP2 Evidence Report in 2024 and dated March 2024. This updated audit has been produced in response to the Scottish Minister's appointed Reporter's findings that the evidence report submitted by Glasgow City Council contained insufficient information to enable the planning authority to prepare its local development plan. The Reporter's recommendations related to engagement with Transport Scotland and the Reporter's statement that 'I have no written evidence that Transport Scotland has agreed the contents of the audit'. As a result, Transport Scotland requested updates to this Audit to enable Transport Scotland to recommend the evidence is sufficient.

Updates

The following key changes have been made to update this Audit:

- Details of data relating to the capacity and condition of the trunk road network have been added to Section 2: Existing Network.
- A link to the corresponding transport infrastructure audit section of the CDP mapping hub has been added to Section 2: Existing Network.
- Details of recently completed road maintenance works on the M8 motorway and safety measures on the M74 motorway have been added to the 'recent key achievements' list in Section 2 of this audit.
- In the active travel segment of section 5: 'Programmed Improvements' it has been noted that the Active Freeways programme has been renamed as the Active Travel Lanes programme
- Related to STPR2 Recommendation 17: 'Edinburgh/Glasgow-Perth/Dundee Rail Corridor Enhancements', details of the live projects have been added to the rail section of Section 5: Programmed Improvements.
- Details of Transport Scotland's Rail Decarbonisation Action Plan have been added to the rail segment of Section 5: Programmed Improvements.
- The public transport connectivity segment of Section 5: Programmed Improvements was updated to highlight Transport Scotland's commitment to engagement on any potential Mobility Hubs pilot schemes.
- Related to STPR2 Recommendation 32: 'Trunk Road and motorway renewal for reliability, resilience and safety', details of the objectives of the M8 Bridges Strategy have been added to the 'private car' segment of Section 5: Programmed Improvements.
- The private car segment of Section 5 'Programmed Improvements' has been updated to include details of the motion passed by Glasgow City Council to address and reduce the impact of the M8 on the city centre. This updated also reflects Transport Scotland's commitment to continued consideration of the asks of the motion.

- The expected date of completion for the M8 Woodside Viaducts repair programme was updated from late 2024 to ‘early 2026’ in ‘private car’ segment of Section 5: Programmed Improvements.
- Details of planned work to investigate road safety measures between Junction 7 and Junction 8 of the M74 motorway have been added to the ‘private car’ segment of Section 5: Programmed Improvements.
- Further details of a commitment to explore future possibilities to reduce the impact of the M8 on the city centre and Transport Scotland’s intention to work with GCC to evolve an approach to reducing impact through the Glasgow Manged Motorways study have been added to the ‘private car’ segment of Section 5: Programmed Improvements.
- Section 7: Deliverability has been updated to include details of the ongoing update to the current transport appraisal guidance: DPMTAG.

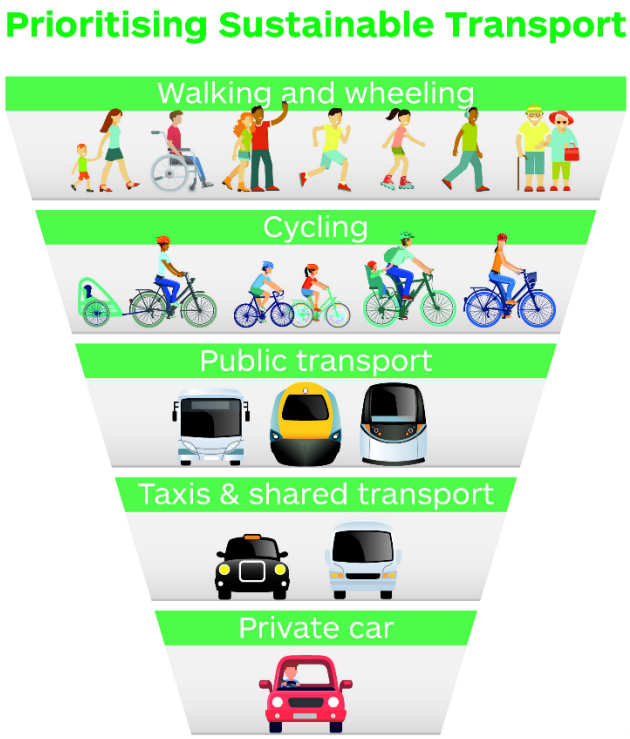
Existing Transport Infrastructure

1. What is transport infrastructure and how does it relate to land use?

What is Transport?

Transport infrastructure is the fixed installations, structures, and networks that provide a framework for the movement of people and goods. It also includes the services – both public and private necessary in maintaining the functioning of movement and providing public goods. For the purposes of spatial planning within Glasgow, urban transport infrastructure can be grouped under five broad headings:

- Cycle lanes and walkways, bike infrastructure and crossing points (active travel)
- Rail, bus, subway and future Clyde Metro (public transport)
- Roads, bridges and tunnels (local and trunk)
- Waterways (blue infrastructure)
- Services – governance and planning, maintenance, safety (lighting, gritting, drainage etc), fuelling, policing and recovery.



The Sustainable Travel Hierarchy is a planning tool designed to promote adaption of the transport system so that walking, cycling and public and shared transport are promoted and take precedence ahead of private car use.

The Sustainable Investment Hierarchy

Investment promoting a range of measures, including innovative solutions, to make better use of existing capacity will then be considered, ensuring that existing transport networks and systems are fully optimised. Only following these steps will investment involving targeted infrastructure improvements be considered. At the national level the Sustainable Investment Hierarchy will be used to inform future investment decisions and ensure transport options that focus on reducing inequalities and the need to travel unsustainably are prioritised.

Relationship between transport and planning

NPF4 provides policy support for well connected networks that make moving around easy and reduce car dependency. In furtherance of these aims, the following design attributes should be built into systems:

- active travel by encouraging more walking, wheeling and cycling together with reliable, accessible, public transport and shared transport hubs that allow for simple modal shifts;
- connectivity including strategic cycle routes, local cycle routes, footpaths, pavements, active travel networks, desire lines, destinations, permeability, accessibility and catering for different needs and abilities;
- convenient connections including local and regional interconnection, infrastructure, sustainable travel, interchange between public transport and active travel and supporting easy modal shifts in transport;
- pedestrian experience including safe crossing, pedestrian priority, reduced vehicular speed and noise, inclusive design and surfaces, assistive technology, reduced street clutter, catering for suitable vehicular parking and management of loading/unloading and deliveries and refuse collections.

LDPs through the spatial strategy have a key responsibility in reducing car dependency by integrating residential development within the necessary supporting infrastructure and services – including sustainable transport opportunities, in a way that promotes sustainable development.

NTS2 states “Planning and development have a major influence on our transport system. We will continue to work collaboratively to ensure that, when planning decisions are made, as a priority they will consider the impacts on transport.” Furthermore, “transport accessibility will influence the location and design of future development. Transport will help planning and development and also ensure our communities are sustainable.” Thus, transport accessibility should be a key consideration in determining the locations for development.

As such, CDP2 will need to ensure the development allocations and the actions it contains are interlinked to the sustainable transport network. This Transport Audit therefore identifies what the existing and programmed network is and considers what CDP2 will need to deliver.

Transport Policy and Strategy Context

The following strategies and policies set out the transport policy and projects/actions which CDP2 must deliver on. As such this Transport Audit does not repeat the contents of these documents which form part of the evidence base for transport:

National

- National Transport Strategy 2 2020
- Strategic Transport Projects Review 2 (and Technical Report) 2023
- NPF4 2023 – Policy 13 and National Developments

Regional

- Regional Transport Strategy for the West of Scotland 2023 - 2038

Glasgow City Council

- Glasgow Transport Strategy 2022 –Policy Framework, Spatial Delivery Framework
- Active Travel Strategy 2022 and related Travel Behaviour Change Strategy, and Cycling and Urban Sports Strategy

- Glasgow's Strategic Plan for Cycling 2016-25
- City Network Delivery Plan (Cycling)
- City Centre Transport Plan 2022
- Core Path Plan

In particular the following documents set out the data that underpins the Glasgow Transport Strategy and provide the evidence base for CDP2. Glasgow Transport Strategy Evidence Base:

- To inform preparation of the Glasgow Transport Strategy, a consultation was held in 2020 'A Public Conversation on Glasgow's Transport Future – Main Report of Findings', which can be found at https://www.glasgow.gov.uk/connectingcommunities. Responses have been used to develop the above strategy and will be used to inform CDP2.
- Case for Change report 2021 - This is a technical report of evidence of problems to tackle in the Glasgow Transport Strategy, opportunities to build on, draft outcomes and initial policy focus areas, and an initial discussion of how travel demand may change in the future.

The Annual Status and Options Report (ASOR) sets out the condition of our road related assets and provides a means of identifying and prioritising the overall funding needs of each of the asset categories. It is produced on an annual basis and the ASOR 2023 is available online. In addition the Road Asset Management Plan 2021-26 is designed to assist the Council on how best to manage our road assets. This document sets out the Council's plans for the maintenance of the Council's road assets for the period 2021 – 2026.

The CDP Mapping Hub sets out transport spatial data that relates to this Audit and should be considered alongside this Audit.

2. Existing Network

Glasgow has a comprehensive transport system across all modes:

Walking and Wheeling • The Council is responsible for the maintenance of 3,124km of footways. • Condition data indicates that 81.2% of Glasgow's footways are in either a good or fair condition.	Cycling • The Council has 310km of cycleways and extensive cycle parking facilities, including secure storage shelters. • Condition data indicates that 94% of the primary cycle network is in good or fair condition. • The network includes the National Cycle Network and other strategic routes, commuter routes in parks and open spaces, signed 'quiet ways' and local routes. • The Glasgow Cycle Hire Scheme is now available at 113 separate locations throughout the city. The overall fleet size is 1189, which includes 159 eBikes. Over 50% of all hire stations now have ebike capacity.	Public Transport – Rail • There are 60 train stations within the Glasgow City Council area. • In 2022/23, Glasgow Central was the busiest rail station in Scotland, with 20.7 million passenger journeys, Glasgow Queen Street was third with 12 million, Partick was sixth with 2 million, Charing Cross tenth with 1.3 million, and Exhibition Centre Glasgow was eleventh with by 1.1 million[1].
Public Transport – Bus[2] • Bus stop locations - There are 2883 bus stops within Glasgow. • SPT owns and operates 3 bus stations within Glasgow - Buchanan, Govan and Partick. • Buchanan Bus Station - In 2022/23, 56 operational stances and 15 parking bays handled almost 500,000 local, regional and national departures. • Bus stations at Silverburn and Glasgow Fort are also key parts of the City's local	Public Transport – Subway[3] • The fifteen Subway stations are distributed over a 10 km circuit of Glasgow's West End and City Centre, with eight stations to the North of the River Clyde and seven to the South. • In 2022/23 the Subway carried 11.9 million passengers. In 2022/23 the three busiest stations were Buchanan Street with 2.2 million gate entries, Hillhead with 1.8million and St Enoch with 1.7 million.	Shared Transport and Taxis • Co Wheels car club provides a pool of approximately 54 cars across the city.

[1] Office of Rail and Road
[2] SPT
[3] SPT

bus network and provide high quality waiting environments for passengers.	• On the Inner and Outer Circles there are six trains in operation in each direction at peak times, resulting in a train every four minutes and four trains in operation in the off peak resulting in a train every eight minutes. • SPT operates three Subway park and ride sites: Bridge Street (183 spaces); Kelvinbridge (158 spaces) and Shields Road (839 spaces).	
Private Cars and Roads • Glasgow City Council is responsible for the management and maintenance of 1,922km of roads. • Condition data indicates that the condition of Glasgow's carriageways remained at 71.7% of carriageways in acceptable condition. • The trunk road network in Glasgow comprises M74, M77, M8 and M80. Actions aimed at changing the performance and characteristics of the trunk road network require Transport Scotland approval. • Data on traffic volume and movement on the trunk network is provided on the Drakewell C2-Cloud Traffic Data Portal. This data will be used to develop an understanding of the capacity and condition of the strategic transport network to inform the CDP2 Transport Appraisal and Proposed Plan.	Electric Vehicles • As of 1 September 2023, the Council has installed 327 charge points across 170 units for public use. These chargepoints are located in a mixture of onstreet sites and public carparks and are connected to the ChargePlace Scotland (CPS) network. • Additional privately installed and operated points are available.	Freight • The Glasgow and the Clyde Valley Strategic Development Plan identified 5 Strategic Freight transport Hubs (Eurocentral / Mossend, Gartsherrie, Mossend, Glasgow International Airport and Ocean Terminal) and whilst none of them are located within Glasgow's boundaries, the traffic generated will impact the motorway system in particular which runs through Glasgow including passengers to the ocean terminal and airport, and commercial freight being interchanged at the rail heads. Within Glasgow, Deanside Freight rail terminal and King George V Dock are identified as key freight hubs with good access to the trunk road network.

Sources: All other data, Glasgow City Council

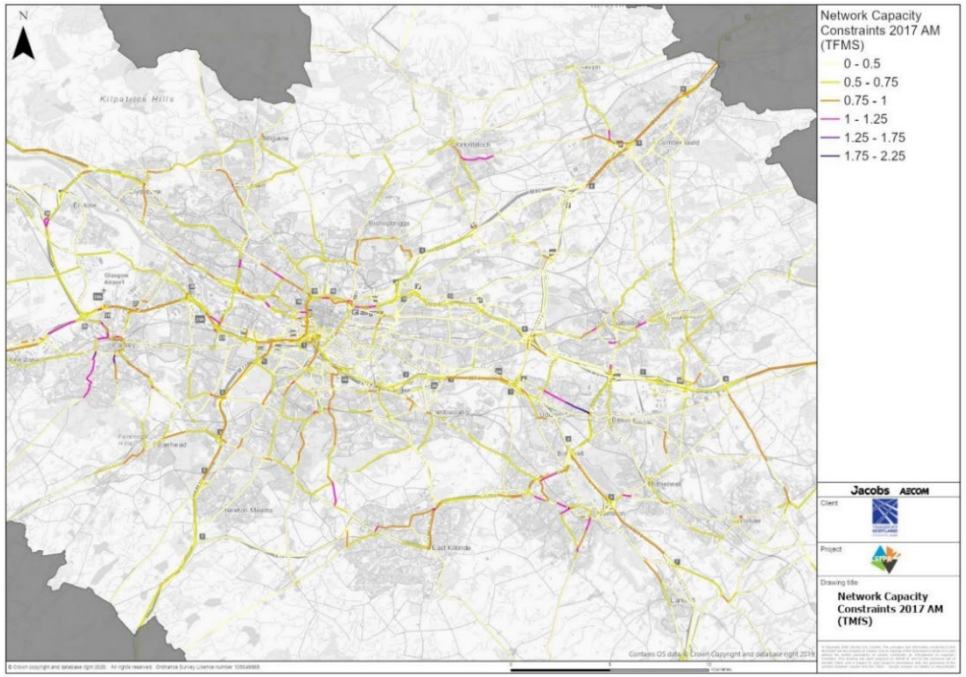
A spatial representation of Glasgow's existing transport network can be viewed on the 'Infrastructure Audit: Transport' section of the CDP Mapping Hub.

Existing Trunk Road Network

To understand the current network and inform the Transport Appraisal required for the Proposed Plan, this section provides a sample of travel patterns and traffic flow information for the trunk roads within Glasgow, providing an initial analysis of the existing trunk road network, its usage, and capacity. The data informing this understanding is sourced from the Case for Change documents that informed the Glasgow Transport Strategy and STPR2, supplemented with traffic flow data from 2022 and 2023. At the time of producing the Transport Appraisal, the establishment of baseline traffic flows will be required as part of the modelling work, and the detailed methodology for the Transport Appraisal will include the agreed-upon data with Transport Scotland. This is further discussed in Section 7: Deliverability.

Strategic Transport Projects Review 2

The STPR2 Initial Appraisal: Case for Change Glasgow City Region document reports that modelling using the Transport Model for Scotland (TMfS) indicates that certain areas of the road network operate at capacity, leading to increased journey times and unreliable travel times. The roads most impacted include the arterial Trunk Road routes M80, M8, M77, and M74, which affect travel into Glasgow City during peak periods. This issue is noted in the associated STPR2 stakeholder engagement. Additionally, this congestion is affecting journey time reliability to Glasgow Airport which is viewed as a barrier for the airport. The network capacity analysis (based on 2017 data) displays traffic flow in relation to road capacity during both morning and evening hours. The maps below show the output of this analysis, indicating that the city centre segment of the M8 and the stretch of the M77 adjacent to Pollok Country Park were operating with traffic flow often exceeding capacity at the time of analysis.



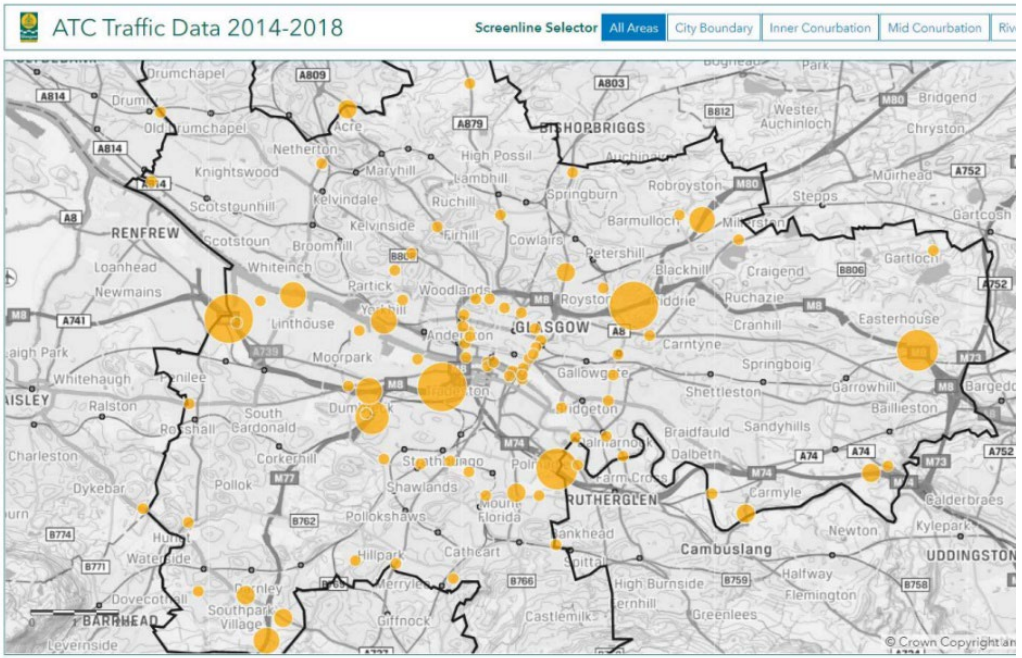
Glasgow Transport Strategy Case for Change

The GTS Case for Change acknowledges that overall traffic volume, measured in vehicle kilometres, have risen within the authority area between 1995 and 2018. Notably, the trunk road network has experienced the highest rate of increase over time, surpassing the growth observed on local roads.

Traffic flow analysis was performed to support the Glasgow Transport Strategy. By examining ATC cordon count data from 2018, considering the 5-day average of inbound and outbound traffic at various traffic count points, this analysis identified areas in the city with the heaviest traffic flows. The map adjacent shows the areas where the highest flow of traffic was recorded, represented by the size of orange circles. The most significant traffic flows are on the motorway network, particularly on the M8. The specific points in the road network identified as having the highest traffic flows are:

- Between junction 13 and 14 of M8 at Riddrie.
- At the connection of the M77, M74 and M8 at Kinning Park.
- Between junction 25 and junction 25a on the M8 on the western boundary of the Glasgow local authority area at Braehead.
- On the M77 approaching the connection to the M8 at Dumbreck.
- Between junction 8 and 9 of the M8 at Swinton.
- On the M74 at Polmadie.

Figure 27 ATC cordon count data in 2018, 5 day average combined inbound and outbound



Scottish Transport Statistics 2023 Report

The Scottish Transport Statistics 2023 outlines annual traffic on trunk roads by Council area from 2011 to 2022. The findings for Glasgow are shown below:

Council area Trunk Roads	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Glasgow (million vehicle km/s)	1,313	1,481	1,522	1,510	1,499	1,548	1,572	1,543	1,605	1,169	1,381	1,529

This data shows that traffic on the trunk roads increased between 2011 and 2019. Traffic flow then decreased significantly during 2020 and 2021, likely due to reduced travel trends during the Covid-19 pandemic. However, traffic on the trunk roads in Glasgow returned to near pre-pandemic levels in 2022.

Department for Transport Road Traffic Statistics

To evaluate current trunk road traffic flow, an assessment of traffic counts has been conducted on the segments of the trunk road network in Glasgow with the highest levels of congestion, as identified in the STRP2 and GTS case for change documents. The following data count points were selected:

Count Point 40809: M8 Between Junction 13 and 14

Annual Average Daily Flow of Traffic	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of all motor vehicles	95,739	96,107	97,258	96,469	96,437	95,277	94,940	94,806	65,446	74,774	75,664	76,822

Count Point 82040: The Connection of the M77, M74 and M8 at Kinning Park

Annual Average Daily Flow of Traffic	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of all motor vehicles	97,664	98,525	99,622	101,478	104,453	120,262	120,248	121,642	81,851	93,737	105,737	108,565

Count Point 80219: M8 Between Junction 25 and 25a on the Western Boundary of the Glasgow Local Authority Area at Braehead

Annual Average Daily Flow of Traffic	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of all motor vehicles	117,210	119,557	144,805	147,221	149,657	143,253	142,606	143,987	98,557	114,997	126,807	130,196

Count Point 82037: M77 Approaching the Connection to the M8 at Dumbreck

Annual Average Daily Flow of Traffic	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of all motor vehicles	61,193	62,360	63,567	89,059	90,579	91,028	91,442	92,466	63,526	72,734	81,955	85,941

The selected high traffic flow count points exhibit consistent trends from 2012 to 2023. Traffic flow generally increased incrementally from 2012 to 2019 before experiencing a sharp decline in 2020, coinciding with the Covid-19 pandemic. In the post-pandemic period of 2022 and 2023, all count points showed a significant increase in traffic flow. However, none of these points have returned to pre-pandemic levels as of 2023.

Conclusions

The GTS and STPR2 Case for Change document indicates that traffic on Glasgow's trunk roads had been consistently increasing in the years preceding the Covid-19 pandemic. These documents also point out that congestion is a significant issue on these roads, with several segments of the network operating at or above their optimal capacity. Although recent Transport Scotland statistics and traffic count analyses show a marked decrease in traffic flow during the Covid-19 pandemic, traffic flows have since returned to near pre-pandemic levels, continuing the overall trend of increasing traffic on Glasgow's trunk roads.

Recent Key Achievements

Recent key achievements that have improved Glasgow's transport system include:

- **Stockingfield Junction canal pedestrian bridge** - The purpose of the project is to reconnect the existing towpath severed following the construction of the Forth & Clyde Canal, North Glasgow branch of the canal. The new crossing will improve connectivity along the canal and over the canal by obviating the need to use footways under the canal aqueduct which are regarded as unsatisfactory. The active travel bridge was opened in 2022 re-connecting the communities of Ruchill, Gilshochill and Maryhill delivering multiple benefits.
- **Sighthill pedestrian bridge** - The Sighthill 'green bridge' forms part of the Sighthill TRA masterplan. The bridge forms a connection between the main masterplan 'civic spine' via arrival at a new public square acting as a key node between Sighthill / Port Dundas and the City Centre. On the city centre side space has been opened up to ensure high visibility to the bridge and enhance with public realm landscaping – which itself will connect into the wider strategy for a public realm link to George Square.
- **Partick / Govan opening active travel bridge** - The bridge represents the centre piece of a 'movement and integration' plan for the SDF area, promoting walking and cycling enhancements and recognising the role of all travel modes and access requirements, including public transport. The connection is also a key action cited in the Govan - Partick Strategic Development Framework. Key design features of the new lifting active travel bridge include minimum 6m clear deck width along the bridges full length to accommodate pedestrian flows of up to 9000 users per day; a 50m wide

navigation clearance required to permit passage of all vessels without restriction on their air draft; 1.4m high parapet for pedestrians and cyclists; and integrated lighting designed and detailed as part of the structure.

- **School Streets** – Between 2019 and 2022, 46 schools have been subject to pilot project which aims to limit traffic in the streets surrounding schools at key times, creating a predominantly car free zone. Pilots have become permanent after an initial 18 month trial.
- **South City Way –** In June 2023 the 2.5km route reached Glasgow City Centre and as such the fully-segregated, two-way cycle path has provided a high quality, direct and safe link between Glasgow's southside and the city centre.
- **Glasgow Cycle Hire Scheme** – The scheme continues to grow and as of March 2024, is now available at 113 separate locations throughout the city. The rapid expansion of the scheme has exceeded the original programme, which intended to see the project achieve 100 locations by 2025.The continued growth of the cycle hire scheme will therefore help to make cycling a more viable option for many people.
- **Glasgow Car Share Club** – The scheme continues to grow, with an additional seventeen cars associated with Housing Associations added to the fleet, creating a 71 strong pool of vehicles for more than 4200 members already signed up to the car club in Glasgow.
- **Robroyston Station** - A new park and ride facility providing 258 spaces at Robroyston station opened in December 2019 offering a new alternative for people driving into Glasgow along the nearby M80. The station has facilitated the delivery of new housing in Robroyston Community Growth Area and a forthcoming footbridge over the M80 will provide residents in the north of the Robroyston Community Growth Area with a pedestrian / cycle link to the station.
- **Barrhead route electrification and station improvement works** – These were completed in December 2023 – this includes Glasgow stations at Kennishead, Darnley and Priesthill and Nitshill.
- **Buchanan Bus Station refurbishment -** improvements to the station concourse, providing a clearer more easily navigable environment and the introduction of new passenger information screens, and enhanced audio and visual information at each of the stances to improve accessibility and the overall passenger experience.
- **Govan Interchange** reopened in August 2016 following a £7million refurbishment comprising:
    - 7 bus stances - drive in reverse out
    - 2 layover bays
    - Enclosed passenger waiting with no need for passengers to cross the operational area.
- **Partick bus interchange** reopened in August 2018 following £2.5 million modernisation. Upgraded facilities include:
    - 6 Stances - Drive in, drive out
    - High-quality bespoke shelters with improved weather protection
    - Real Time Passenger Information displays
    - High access kerbs for level entry access to buses
    - Improved LED lighting
    - CCTV
    - Public address system connected to bus control
    - Seating
    - Improved safety features
    - Improved public realm

- **Subway Stations and Tunnels** – All stations have been refurbished between 2012 and 2020. Station refurbishment has resulted in improvements in accessibility, safety and information provision. Further improvements are proposed including the complete replacement of rolling stock. Lifts have been installed at two stations – St Enoch and Govan – and all 28 escalators have been replaced throughout the system.
- **Byres Rd / Dumbarton Rd Air Quality Management Area** – As of 2021, Glasgow has 2 Air Quality Management Areas (AQMAs) for nitrogen dioxide (NO_2) within the city – the City Centre and Byres Rd / Dumbarton Rd. Whilst the Byres Rd / Dumbarton Rd AQMA remains in effect in respect of the annual mean objective for NO_2, continued monitoring has shown no exceedances of this objective since 2017. The 2023 Annual Progress Report therefore proposes that the Byres Rd / Dumbarton Rd AQMA be revoked in terms of this objective.
- **City Centre Low Emissions Zone** – In 2018 Glasgow implemented a Low Emission Zone (LEZ) covering the city centre area. The LEZ has been introduced in two phases, with the first phase targeting improvements in emissions arising from scheduled bus journeys through the city centre. From December 2018 the LEZ required that 20% of bus journeys through the city centre meet the Euro VI emission standard. This target was increased by 20% each year, until 100% of buses were compliant by end of December 2022. The second phase of the LEZ received Ministerial approval and came into effect on 31 May 2022. This began a statutory one-year grace period before general enforcement began on 1 June 2023. A further year grace period for vehicles registered to residential properties within the zone means enforcement for these vehicles will begin on 1 June 2024. The Glasgow LEZ will apply to all vehicle types with the exception of motorcycles and mopeds.
- **M8 Road Maintenance** - Refurbishment of three structures between Junction 25 and 25A was completed in Sept 2023 in two phases in consultation with GCC and other stakeholders. Between the Hillington and Clyde Tunnel junctions required significant maintenance to the structures and this was co-ordinated effectively to minimise the duration of the scheme and traffic disruption.
- **M74 Road Safety Scheme-** A scheme to reprofile the northbound M74 carriageway at Junction 10 was constructed in 2023. This section was prone to standing water and the carriageway was reprofiled to improve the crossfall of the M74 and reduce the number of collisions occurring in wet conditions.

3. Compatibility with Investment Hierarchies

NPF4 states that the CDP2 spatial strategy should reflect the sustainable travel hierarchy (section 1) and sustainable investment hierarchy (below) by reducing the need to travel unsustainably, making best use of existing infrastructure and services, before delivering targeted infrastructure improvements. The Glasgow Transport Strategy and other Glasgow City Council transport plans and strategies have been developed with these hierarchies integrated into the approach through their focus on sustainable transport modes and increasing connectivity. The Annual Status and Options Report (ASOR) 2023 notes that the cost of replacing all road infrastructure assets is currently estimated at £4.57bn; given the cost of delivering new infrastructure, maximising the use of Glasgow's current infrastructure is essential.

As such CDP2 should be produced so that development relates to the existing transport infrastructure but also relates to and delivers integration with the proposed transport infrastructure set out by Glasgow City Council. CDP2 can also assist to reduce unsustainable travel by supporting digital infrastructure and liveable neighbourhoods.

NTS2 Sustainable Investment Hierarchy

Proposed Transport Infrastructure

4. Future Needs

Future needs for transport are identified in the Case for Change documents that underpin transport strategies and projects.

Glasgow Transport Strategy Case for Change

Taken from the Glasgow Transport Strategy Summary Case for Change Report (Final) 2021-31, below is a short summary of the problems which were discussed in the community and stakeholder and Community Councils conversations, highlighting some of the impacts of transport.

- The high cost of public transport, especially relative to low incomes.
- Disability-related problems with transport including a lack of physical accessibility and many other barriers to travel caused by a complex and unreliable system, lack of assistance, poor information, lack of toilet facilities, and poor attitudes of staff and passengers.
- The lack of adequate transport options (including in evenings and a weekends) in some parts of the city, particularly between neighbouring communities and within local communities, and to key services and facilities such as healthcare, schools and food.
- Lack of integration in the public transport system and unequal access to public transport across the city. Different modes of transport not linked together physically, with timings, or with tickets.
- Problems with personal safety on public transport, including discrimination, overcrowding, hate crime and sexual assault.
- Reliability of public transport, particularly buses.
- Inadequate walking environments which limit mobility and access to local services and contributes to feelings of neglect and poor mental health.
- Vehicle-dominated design and spaces in the city, with people walking and cycling competing for the same restricted space, and mobility limited by parked vehicles.
- Cycling related problems, including lack of confidence, lack of access to bikes and storage, lack of safe places to cycle and uneven distribution of cycle infrastructure across the city.
- Road infrastructure issues including maintenance and poor surface water drainage further limiting active mobility.
- Absence of everyday services like fresh food and education in some neighbourhoods.
- Overall design of the city in recent history to focus on the car. This is particularly a problem now for climate change and emissions.
- Congestion in the city and number of motorised vehicles, impacting on people on bikes and also particularly on buses and leading to journey time delay and variability.
- Parking related issues around schools and from heavy vehicles, and lack of enforcement.
- Impacts of heavy goods vehicles on local communities and fabric of the road/footway network.
- Poor public transport access to hospitals.

- Complex bus operating system with a lack of publicly-owned buses, failure of bus privatisation and lack of public transport integration. High cost of public transport and impact on low-income workers.
- Inequality of public transport connections for outlying areas particularly in areas of deprivation. Inadequate bus services within and to communities in some parts.
- Lack of Park and Ride and public transport interchange opportunities in some parts of the city.
- Train stations inaccessible to those with mobility difficulties. Still significant issues overall in the transport system for people with disabilities, including less visible conditions like epilepsy.
- Lack of support for public hire taxis in Glasgow, and the need to recognise them as part of an integrated public transport system.
- Still new build development with lack of facilities within walking distance, and issues with the quality of walking infrastructure and public realm in parts of the city.
- Lack of cycling network, including in green spaces.
- Lack of cycle storage particularly for tenements.
- Lack of cross-boundary active travel links. The need to tackle cross-boundary trips overall.
- Rise in serious injured cycling casualties in the last 10 years.
- Tension between users in shared space and some concerns over anti-social cycling behaviour.
- Lack of adequate surface public transport access to Glasgow Airport. - Lack of access to data due to silos and restrictions, which is making it hard to develop solutions and be innovative.
- The need to support transport and access-related issues for businesses and the city centre, particularly in recovery from Covid-19.
- Lack of consultation on cycle lane implementation, anti-car policy in the city.
- The impacts of parking on their communities and perceived lack of enforcement, and sometimes lack of parking for local public transport interchanges. Conversely, some concerns parking is too restricted in some areas and impacting on families and local businesses.
- The lack of accessible local rail and Subway stations.
- Inadequate bus services and connections to nearby areas and crucial services such as health. High cost of buses, lack of integrated ticketing and failure of bus privatisation.
- Speeding concerns.
- Environmental pollution issues from high traffic levels on some routes.
- Concerns over conflict between pedestrians and cyclists in shared spaces.
- Lack of adequate walking and cycling infrastructure locally.
- Impacts of heavy vehicles on local roads and pavements, and historic buildings.

The Glasgow Transport Strategy Case for Change (2021) includes detailed analysis on how people currently travel in Glasgow and therefore sets out baseline data and an evidence base for Glasgow City Council's proposed transport system for the city. It highlights the following key issues:

Active Travel:

- Walking is the single biggest mode of travel to school in Glasgow – however, in relation to Scotland averages, less children walk to school in Glasgow and more are driven, which presents a problem.
- Glasgow slightly lags behind other large urban areas in Scotland in terms of the proportion of people who walk for journeys (though it has comparatively more people using public transport than other large urban areas in Scotland). Walking still remains a very important mode overall however, particularly for the journey to school.
- Walking for leisure in Glasgow is at a lower level than comparable urban areas. Conversely, cycling for physical activity in Glasgow is now slightly ahead of the Scottish average. Participation in walking varies by ranking of deprivation, with those in more deprived areas less likely to participate.
- Glasgow has a higher than average proportion of commuting trips made by bike (5% compared to the Scotland average of 2.8%, and 7% in Edinburgh).
- In Glasgow in 2018, some 73% of households had no private access to a bike according to the Scottish Household Survey.
- Cycling has been increasing in the city over the past decade, as measured by counts at particular locations in the city centre.

Public Transport:

- Glasgow also sees the second highest rail-based commuting figures in Scotland (after West Dunbartonshire), and the second highest bus-based commuting in Scotland (after Edinburgh).
- The journey to access healthcare was an issue for many Glasgow residents in the SPT RTS survey (a third of the overall Glasgow sample), with the main issues being lack of direct public transport services, followed by frequency, reliability and cost of public transport. Paying for taxis or arranging for a lift was a common response, and a third of the question respondents said they had been late for appointments.
- From the SPT RTS survey of Glasgow residents, when asked what would encourage them to use their car or van less, the top responses referred to better public transport.
- Bus is a significant mode in Glasgow, but like elsewhere in the UK, passenger numbers have been declining.
- Rail patronage continues to grow overall in the region (pre-Covid). The fastest growing stations over the last 5 years includes Dalmarnock in the south-east of the city, linked to the Glasgow City Region City Deal programme and Clyde Gateway project. After Central and Queen Street, the top 4 busiest stations in the City are to the west – Partick, Charing Cross, Exhibition Centre and Hyndland. Network Rail identified long-term capacity constraints at Glasgow Central as an issue in their Scotland Route Study (published July 2016), forecasting several connections to Glasgow Central seeing more demand than capacity by 2043. However it should be noted that this was based on a pre-Covid level of commuter demand and these forecasts may no longer be accurate in the context of changing passenger behaviours post-pandemic.
- There is a relatively high use of buses in Glasgow generally, particularly for commuting. This coupled with a relatively high proportion of the population without access to a car, and a relatively dense population, suggests demand for non-car modes of travel. Similarly, there is a relatively high use of rail in Glasgow and an extensive rail network. The Subway is an important part of the public transport offer in Glasgow, and there is an ongoing modernisation programme by SPT.

Private Cars and Roads:

- The main mode of travel for the journey to work in Glasgow is by car, in terms of the single highest proportion of people travelling in a specific way. In contrast to the Scottish average however, the overall majority of people in Glasgow who travel for work do not travel by car.
- Vehicle kilometres (a key metric to demonstrate traffic volumes) continue to rise in the City Council area though the largest increase is on the trunk road network, whilst the local roads network has seen less change over 20 years, and indeed peaked in 2007. There is some evidence this has been rising again slowly since 2013. Vehicle kilometres on the trunk road network meanwhile has been steadily increasing over time and at a higher rate than on local roads.
- In general, further analysis is required to understand the potential impact of trends accelerated by Covid-19 on previous assumptions around future traffic growth. Covid-19 in 2020 also saw a change in distribution of traffic across the day, with a decline in AM peaks.
- Vehicle dominated spaces were raised as a problem in the Public Conversation from parking, to speeding to people on foot or on bikes feeling secondary to cars.
- The number of vehicles licensed per 1000 population in Glasgow, at 385, is the lowest in Scotland of any local authority. 46% of households in Glasgow do not have access to a car. This rises to over 70% when considering households in social sector tenure only. Analysis suggests there is there is a clear correlation between 2020 Scottish Index of Multiple Deprivation (SIMD) income domain ranking and household access to a car in Glasgow (lower income, less likely to have access to a car).

Impact of travel on equalities groups:

- Lack of accessible environments is still an issue for some in Glasgow, as evidenced by the Public Conversation. From inaccessible rail and Subway stations, to lack of disabled spaces on buses or in taxis, to specific needs not being catered for e.g. those with hidden disabilities.
- A younger population may be more open to technology to support travel decisions, and there is evidence that younger people are less likely to want to use or own a car. This particularly applies to the city centre, where policy goals exist to double the residential population. Glasgow Household Survey data suggests younger people are more likely to consider living in the city centre, and least likely to want to have access to a car.
- Initial public transport accessibility analysis by University of Glasgow's Urban Big Data Centre suggests that women generally have longer travel times to access key destinations in the city, as do people in the most deprived parts of the city as ranked by SIMD. Younger people tend to have better accessibility due to being more likely to live closer to the city centre. Some ethnicities are clustered in parts of the city, which matters for public transport provision as access to a car can vary substantially by ethnicity.

Commuting and access to jobs:

- Google data suggests over 70% of trips are made within Glasgow's boundary. That still leaves just under a third of trips which involve movements across the city boundary, and this matters for what Glasgow City Council can do in relation to encouraging sustainable travel choices. Compared to Edinburgh, Glasgow has a lower proportion of Glasgow residents working within Glasgow (60% v. 72% for Edinburgh). This suggests there should be emphasis on trying to transfer larger proportions of these inbound and outbound journeys to public transport.

- There is a market for sustainable, collective transport (buses, heavy rail, light rail) due to a high population density, and an opportunity to ensure planning policy supports a compact city in the future.
- There is evidence that transport can be a significant barrier to taking up jobs and training, with one in ten respondents to the Glasgow Household Survey saying they had been unable to apply for, or accept, a job whilst living in Glasgow because it would have been difficult to get to or from the place the job was based. This was even more the case for those without access to a car, and was slightly more of an issue for people in the north of the city as opposed to the south.
- Mapping of jobs in the City demonstrates a high proportion of jobs in the city centre area, as well as the west of the city around Braehead and Hillington, and a general westward corridor from the city centre.
- Initial public transport accessibility analysis by University of Glasgow suggests those in the most deprived parts of the city have access to the lowest number of jobs within a 30 minute travel time.

The Glasgow Transport Strategy Case for Change (2021) also includes factors which may influence travel demand in the future, in an analysis of uncertainty as part of a Triple Access Planning approach:

- Covid-19 has changed when and for what purpose we travel - less commuting, more online service access, less peak-time journeys, shift in employment sectors
- Population change - Glasgow has a relatively young population for now, the population is forecast to grow including in-migration, the city centre residential population will grow
- The world of work - more flexible working, more automation, more job uncertainty and new models of employment
- Consumer choices - more online shopping, moving towards an experience-based economy instead of consumption, changing environmental values & awareness, work/life balance
- Technology - more automation and digital services including healthcare & education, 5g and faster networks, smart city technologies. AI, big data and the 'internet of things'
- Governance - more localised decision-making and community empowerment, more funding streams linked to low carbon economy, regulatory framework & governance changes
- Energy - targets for renewable energy, phasing out petrol & diesel cars, supply & price of electricity, role of hydrogen
- New modes of mobility, disruption in the marketplace, connected and autonomous vehicles

Glasgow Transport Strategy policies with specific calls on CDP2

A key ambition of the Glasgow Transport Strategy (GTS) in achieving the Council's net-zero carbon 2030 goal, is to reduce car vehicle kms in the city by at least 30% by 2030. This and the requirements of NPF4 requires CDP2 to ensure that the Sustainable Transport Hierarchy is followed and that travel by sustainable modes is prioritised first and foremost.

The GTS requires CDP2 to deliver on the following:

- Direct development to areas of the city with existing public transport, increase densification of the city and facilitate the 20-minute neighbourhood concept to help deliver efficient use of land, improving public transport viability and deliver more liveable neighbourhoods. A Transport Appraisal should be undertaken in producing CDP2 in order to facilitate this approach.
- Consider where developer contributions may be required and how they can be used to deliver sustainable transport for new development.

It also requires the following actions:

- Application of the Council's 2023 updated parking standards
- Continue to promote shared mobility options in the city, including increased access to car clubs and bike hire, by setting out policy on the incorporation of shared mobility options into new development in CDP2 to improve clarity and increase uptake in new development.
- Plan for refuelling points for alternatively-fuelled goods vehicles in the future (such as green hydrogen and electric), particularly in close proximity to the strategic road network.
- Assist in delivering freight distribution / transport hubs.
- Address noise impacts in all transport and development decision making.

Clyde Metro Case for Change

Clyde Metro was a key recommendation from Transport Scotland's national Strategic Transport Projects Review 2 (STPR2) published in December 2022 and is also included in the statutory National Planning Framework 4 (NPF4) published in February 2023. It forms a key part of the new statutory Regional Transport Strategy approved by Scottish Ministers in July 2023 along with the Glasgow Transport Strategy and other relevant local strategies as well. This strategic alignment is important in giving Clyde Metro a strong justification to build on.

In line with the STPR2 recommendations the project partners responsible for taking forward Clyde Metro are Glasgow City Council on behalf of Glasgow City Region, Strathclyde Partnership for Transport (SPT) and Transport Scotland. In November 2023 it was announced that SPT would act as the lead partner for the development of the Case for Investment (CFI) for the Clyde Metro.

Whilst still in the early stages of development, the high-level scope of Clyde Metro can initially be defined as:

- Mass public transport system which could include a variety of modes
- Long-term programme likely to span decades
- Combination of infrastructure / services and complementary measures (e.g., integrated ticketing)
- Transformational in nature and more than just a transport project by delivering a wide spectrum of complementary benefits to society
- Regional in scale, extent and impact across the Glasgow City Region
- Multi-disciplinary

Clyde Metro offers potential for a step-change in transforming the life chances of communities stymied by the greatest inequality challenges caused by unaffordable, unreliable and poorly connected local public transport. It will target improving connectivity whilst contributing to the City Region's ambitions to improve the health and wellbeing of its communities by delivering an inclusive, net zero and climate resilient economy. The programme will equally capture

the place-making, environmental, sustainable and economic benefits whilst also facilitating greater social inclusion, health improvements and equality by delivering truly integrated transport infrastructure, services and supporting measures.

5. Programmed Improvements

This section sets out, by transport mode and in relation to national policy requirements, improvements to Glasgow's transport network that are proposed or programmed for delivery.

Active Travel - Walking and Wheeling, Cycling

STPR2 Recommendation
Connected neighbourhoods (1) Connected neighbourhoods concept iterates the transport component of the 20-minute neighbourhoods concept. By achieving better connected and more accessible communities, as many people as possible can meet the larger number of their daily needs within a reasonable walk, wheel or cycle of their home. **Active freeways and cycle parking hubs (2); Village-town active travel connections (3); Connecting towns by active travel (4); Long-distance active travel network (5)** Active freeways would encourage more people to walk, wheel and cycle more often by providing high-quality direct active travel routes, segregated from traffic, on busy corridors in large urban areas. By improving safety, active freeways would help to address fear of road danger, the biggest single barrier to increasing active travel. Transport Scotland has renamed Active Freeways to Active Travel Lanes and will provide an update on the recommendation in early 2025. **Increasing active travel to school (8)** **Improving access to bikes (9)** The benefits of any investment in new or existing cycle route infrastructure can only be realised by people that have access to a bike. The cost of a bike and associated accessories – such as lights, locks and helmets – can be significant for many people, especially families or people who need more specialist cycles.
NPF4 National Development
National Development 8: National Walking, Cycling and Wheeling Network This national development facilitates the shift from vehicles to walking, cycling and wheeling for everyday journeys contributing to reducing greenhouse gas emissions from transport and is highly beneficial for health and wellbeing. The upgrading and provision of additional active travel infrastructure will be fundamental to the development of a sustainable travel network providing access to settlements, key services and amenities, employment and multimodal hubs. Infrastructure investment should be prioritised for locations where it will achieve our National Transport Strategy 2 priorities and outcomes, to reduce inequalities, take climate action, help deliver a wellbeing economy and to improve health and wellbeing. This will help to deliver great places to live and work, including through connecting neighbourhoods, villages and towns, active freeways and long distance routes.
Regional Transport Strategy
Regional Active Travel Strategy (ATS) and Network and Infrastructure Delivery Plan

SPT are currently working on the development of a Regional Active Travel Strategy (ATS) and Network and Infrastructure Delivery Plan, the key delivery mechanism of the RTS. The development of the strategy and delivery plan will complete by the end of 2024.

The Active Travel Strategy and Network Plan is being developed in line with current and emerging National, Regional and local guidance, supporting the sustainable transport hierarchy, and will be co-ordinated with development of work on strategic transport projects ensuring a planned and integrated network across modes.

The strategy will include a network plan which will provide a cross-boundary, strategic regional network for active travel, improving connections between local authorities and across the West of Scotland. Non-infrastructure elements will also be included in the strategy, including initiatives for behaviour change and access to bikes.

The process will also produce an active travel infrastructure delivery plan & programme to help guide and co-ordinate all active travel infrastructure projects / investments in the region. This will also provide active travel delivery partners and funders with an improved understanding of the region's level of ambition and investment requirements, priorities and timescales (along with the rationale by which they were identified and prioritised) for achieving a step change in active travel provision and quality.

Glasgow City Council Proposed Activity

Liveable Neighbourhoods

Liveable Neighbourhoods (LN) is Glasgow's approach to blending the 20-minute neighbourhood concept with the place principle, enabling residents to live better locally. Through six tranches of work, LN plans will cover every area of Glasgow. LN Plans will both identify existing activity and propose new interventions which align with the four themes of LN:

- Local Town Centres
- Everyday Journeys
- Active Travel
- Streets for People

It is possible to rebalance the way streets are designed and used, to make them more people friendly and better for socialising and improving commercial activity. But also, to place active travel and public transport as a first choice for everyday journeys.
https://www.glasgow.gov.uk/liveableneighbourhoods

City Centre Avenues

The Avenues Project will deliver an integrated network of continuous pedestrian and cycle routes. The Avenues Programme is expected to deliver the Avenues treatment at 21 suitable locations in five blocks of work across Glasgow City Centre and fringes. In addition to the Avenues Programme, Glasgow City Council has successfully secured Sustrans funding (Places for Everyone) to deliver four additional Avenues grouped together in the new Block S (Green). Green/blue infrastructure (such as street trees, planting and Rain Gardens)

- The Enabling Infrastructure Integrated Public Realm (EIIPR) project is a place-making scheme that will enhance 16 key streets and adjacent areas (or "Avenues") in Glasgow City Centre, through the introduction of an improved external environment that will rebalance traffic modes, introduce green and SMART infrastructure.

- Delivery Programme Update 2023 https://www.reglasgow.com/review-underway-to-see-if-full-people-friendly-avenues-programme-can-be-delivered/
- Avenues Project storymap https://glasgowgis.maps.arcgis.com/apps/MapSeries/index.html?appid=f407395d75774e34aeae0c9b02bee5d2

City Centre Transport Plan 2022

- Re-allocate road space within the city centre for active travel and green infrastructure
- Improve access for the mobility impaired

The People First Zone will form key elements of the City Centre Transport Plan (CCTP) in delivering a public realm step change for Glasgow City Centre over the next ten years or so. The strategy sets out a clear framework for transport decision-making that will help make the city centre a more sustainable, liveable place. Actions will include:

- Enhanced and widened footways
- Single surface crossing points
- Segregated cycle lanes
- Reduced street clutter
- Intelligent Street Lighting (ISL) and improved lighting features

Active Travel Strategy (ATS) 2022-2031

The ATS was adopted in 2022 and is focused on three policy and action areas:

- **Connectivity**: people and place: rebalancing our streets and spaces - with a focus on networks and infrastructure in our street environments.
- **Unlocking Change**: enabling everyone to walk, wheel or cycle - focussing on training and education and working collaboratively.
- **Thinking Differently**: encouraging, motivating and sustaining change - focussing on communication and promotion and inspiring people through larger events and other activities.

The City Network represents the concept of a dense network of active travel routes on a wide variety of street contexts including bus corridors, high streets and space constrained streets - to be delivered over the next ten years. The City Network Final Delivery Plan sets out in detail how the council will prioritise its efforts to add almost 270km of safer, segregated active routes for walking, wheeling and cycling to 300km of existing routes in Glasgow. The City Network will be consulted on, designed, and implemented to achieve a functional coherent citywide network by 2031. It will build out from existing and planned infrastructure and tie in with the regional Active Freeways programme and National Cycle Network upgrades – The City Network Interim Delivery Plan sets out the principles and design details that will be utilised in this process.

The Travel Behaviour Change Strategy (TCBS) responds to the Unlocking Change theme of the ATS and frames how choices can be influenced to deliver improved outcomes from transport, in line with the policies of Glasgow's suite of transport strategies. It provides a template for all future transport projects to consider TBCS as an approach to maximise impact from delivery.

The Cycling & Urban Sport Strategy (C&USS) is the first of its kind in the UK and presents a step-shift in our approach to recreational cycling and wheeled urban sports. The C&USS will enable more people to be more active will help to improve the health and wellbeing of Glasgow's residents. It can help unlock vibrant community spaces for all and linking this via the city network will help incorporate movement into people's everyday journeys and lives.
Robroyston Station Connectivity A forthcoming footbridge over the M80 will provide residents to the north of Robroyston Station (opened 2019) and the Robroyston Community Growth Area with a pedestrian / cycle link to the station.
Secure on Street Cycle Parking The expansion of the scheme will see a £2.5m capital investment on approximately 500 new units across Glasgow with space for over 3,000 bikes, which will adequately satisfy current waiting list levels and plans for future growth.

Public Transport

Rail

STPR2 Recommendation
STPR2 Recommendations: High Speed and Cross Border Rail Enhancements (45) Infrastructure upgrades to permit higher speeds on cross-border routes would enable journey times to London and other key destinations to be more competitive with air travel. STPR2 recommends that Transport Scotland continues to work closely with the UK Government to take forward a programme of infrastructure upgrades targeted at longer-distance cross-border routes. This is likely to include the following routes which start/end in Glasgow: West Coast Main Line (WCML), Glasgow and South Western Line (Glasgow to Carlisle via Dumfries). Transport Scotland is taking stock of the recent announcement from the UK Government and what this means for Scotland. **STPR2 Recommendations: Edinburgh/Glasgow-Perth/Dundee Rail Corridor Enhancements (17)** Outline business cases are in development for both decarbonisation of this rail corridor and for journey time and capacity enhancements on this corridor. There are two live projects relating to this recommendation, currently focussed on the Aberdeen to Central Belt route relating to service improvements in the Tayside and Aberdeen City and Shire areas. **STPR2 recommendations: Infrastructure to provide access for all at railway stations (19)** Implementing measures to improve the accessibility of Scotland's railway stations can help ensure that everyone can use the transport system with as few barriers as possible. This would encourage greater use of rail and switching from car travel to support Scotland's net zero carbon emission targets.
NPF4 National Development
National Development 18: High Speed Rail

This national development supports the implementation of increased infrastructure to improve rail capacity and connectivity on the main cross-border routes, the east and west coast mainlines.

Rail connectivity that can effectively compete with air and road based transport between the major towns and cities in Scotland, England and onward to Europe is an essential part of reducing transport emissions, making best use of the rail network and providing greater connectivity opportunities. There can be significant emissions savings of approximately 75% to be made when freight is transported by rail instead of road.

Enhancement would be in addition to and in conjunction with High Speed 2 (HS2) and other enhancements identified by the UK Government. Scottish Ministers have an agreement with the UK Government to develop infrastructure enhancements 'North of HS2' and Scottish Ministers continue to press the UK Government on the imperative that all nations and regions of Britain benefit from the prosperity that HS2 will deliver both in its construction and its implementation. The Strategic Transport Projects Review 2 is appraising through recommendation and will provide the strategic case for investment in the rail network in Scotland, over and above the commitments within HS2.

It is noted that since NPF4 was published in February 2023 with the information above, the UK Government has announced changes to HS2 in England. Information is provided on Transport Scotland's website.

Network Rail Planned Activity

Accessibility Improvements

Step-free access will be delivered at Anniesland between March 2024 to June 2024.

https://www.transport.gov.scot/media/h5omsrtk/national-transport-strategy-third-annual-delivery-plan-2023-24.pdf

Rail Improvements

Control Period 7 covers 2024 to 2029. This includes the following project within Glasgow:

- Work on East Kilbride Enhancement Project commenced in 2023, this includes Glasgow stations at Pollokshaws West and Crossmyloof and electrification of the line.

The Control Period 7 Department for Transport Access for All (to rail stations) schemes have still to be announced.

Transport Scotland Planned Activity

Transport Scotland published the Rail Decarbonisation Action Plan in 2020. It focusses on decarbonising transport through modal shift to rail, and decarbonising rail traction energy through the removal of diesel passenger trains from the Scottish network by 2035. The significance of the work involved by the rail industry in taking forward this action plan requires support from and should be reflected in land-use planning frameworks. The Action Plan includes information on specific routes and lines which will be investigated for improvements.

With regard to decarbonisation, the Scottish Government is committed to decarbonising its passenger rail network and its freight rail services. The Decarbonisation Action Plan commits to all passenger diesel trains being replaced; the order in which that is done will depend on business cases and available budgets. A refresh of the Decarbonisation Action Plan is underway.

Timescales for delivery of both of the abovementioned projects remain under review. Design development of both is at the Outline Business Case (OBC) stage.

Bus

STPR2 Recommendation
STPR2 recommendations: Provision of strategic bus priority measures (14); Bus priority measures, including reallocation of road space, can deliver greater punctuality and faster journey times. Research shows that such benefits would increase the attractiveness of travel by bus and help reverse the continued decline in use.
NPF4 National Development
N/A
Glasgow City Council Proposed Activity
Glasgow Transport Strategy 2022 – Spatial Delivery Framework Part 2 • Bus corridors, Park and Ride locations – see more detail on Bus Partnership below.
Hope Street Bus Corridor In 2022/23 GCC secured funding from SPT's capital programme to design a bus corridor on Hope Street. The project seeks to improve passenger experience through bus stop and public realm enhancements and bus performance through the introduction of junction upgrades to ensure bus priority. In 2023/24, GCC secured further funding to progress the project in a phased manner. Phase 1 is presently on site and will be complete by 31st March 2024.
Glasgow City Region Bus Partnership Proposed Activity
Glasgow City Region Bus Partnership brings together as a voluntary partnership the eight Glasgow City Region local authorities, Strathclyde Partnership for Transport, bus operators (through their new alliance, GlasGo) and bus passenger representative groups to address current challenges to bus travel and to improve the passenger experience for communities across the Region. The vision of the Glasgow City Region Bus Partnership is of a Region where bus services form part of a network of connectivity, enhancing the opportunities and wellbeing of those who live or visit here - providing safe, affordable, enjoyable connections and reducing road congestion, noise and air pollution. Aims of the Glasgow City Region Bus Partnership include: • Improving bus priority mechanisms and reducing congestion to improve bus journey times and reliability • Ensuring buses are given higher priority in any future city planning • Improving the accuracy of real time passenger information and exploring options to introduce an integrated ticketing system **Bus Partnership Fund** The Bus Partnership Fund (BPF) was first announced as part of the 2019 Programme for Government whereby as part of its response to the climate emergency, the Scottish Government committed a long-term investment of £500m to deliver targeted bus priority measures on local and trunk roads. The BPF is managed by Transport Scotland and is awarded to Partnerships, consisting of local authorities, bus operators, regional transport

partnerships and other key stakeholders to work collaboratively to tackle the negative impact of congestion on bus services so that bus journeys are quicker and more reliable, thus encouraging more people to travel by bus.

Glasgow City Council (GCC) as lead authority on behalf of the Glasgow City Region Bus Partnership (GBP) appointed external consultants who are currently developing business cases for five strategic bus corridors allocated funding through the Bus Partnership Fund (BPF). The five strategic bus corridors are as follows:

- Dumbarton Road
- Great Western Road
- Maryhill Road
- Paisley Road West
- Pollokshaws Road

Using funding provided through the BPF, research has been carried out on a Glasgow and Strathclyde Strategic Bus Network Plan. This sets out the improvements that may be required to deliver a world-class bus network for the region. Introducing the network has the potential to unlock wide-ranging benefits that well-used bus networks provide.

In addition, BPF funding has allowed the following interventions to be taken forward within Glasgow, with others in Renfrewshire:

- Howard Street Bus Pre-emption pilot – essentially advanced signal priority for buses at this busy city centre junction
- Signal upgrades on Paisley Road West
- Virtual loop detectors pilot on Paisley Road West
- Making permanent a temporary bus lane on Bothwell Street

Each of these interventions have been designed in alignment with the objectives of the Bus Partnership Fund, and each seek to provide improved priority for buses and therefore shorter and more reliable journey times for passengers.

Due to budgetary constraints the Bus Partnership Fund will be paused for 2024-25. Future funding availability will be considered as part of annual budget setting processes and prioritisation exercises. This pausing presents an opportunity to recast bus priority work within a longer term more integrated public transport vision. To support this, Transport Scotland will continue work with partners to identify the schemes which could be supported in the future as part of an integrated approach to bus service improvement.

The work already undertaken through BPF highlights the opportunities for an integrated place-based approach that could address local issues such as competing road space demands between bus, car users and cyclists.

SPT Planned Activity

Strathclyde Regional Bus Strategy

In 2023, SPT commenced work on the Strathclyde Regional Bus Strategy (SRBS). The SRBS is SPT's process to investigate the use of the provisions in the Transport (Scotland) Act 2019 within the SPT area and to determine a preferred strategy to improving the bus network in the region. The availability, accessibility and affordability of bus services for everyone who wants to use them alongside improving the overall attractiveness of services is essential to encourage new users onto bus and for bus to be seen as an alternative to the car. SPT has considered a number of options, that could deliver a better bus network, including Voluntary Partnerships, Bus Service Improvement Partnerships, Franchising and Municipal Bus. In addition, a Business As Usual option has also been considered. In March 2024, SPT Board approval was granted to commence public consultation on the recommended approach to achieve a better bus network. Specifically, the approach recommends commencing work on local [bus] services franchising, in line with the requirements of the Transport (Scotland) Act 2019 and, for the medium term, to progress with Bus Service Improvements Partnership (BSIP). BSIP can provide a firm basis for private and public sector commitments to arrest further passenger decline, stabilise and improve the bus network whilst franchising is developed. It is estimated that franchising could take between 5 and 7 years to establish. The public consultation will take place over a six-week period during April and May 2024 and results will be reported later this year. The bus strategy is due to be completed in 2025.
Real Time Passenger Information RTPI is available at around 400 locations across Glasgow – SPT and GCC continue to work together to roll out further RTPI displays across the city.
Buchanan Bus Station Work is underway in conjunction with GCC to develop a masterplan for BBS and the area surrounding it in line with City policy, and will consider future demand scenarios as well as technology and connectivity requirements, to ensure the site meets future passenger and operator requirements within a wider development that reflects the City's aspirations. It is anticipated that a bus station and mobility hub will form the core of a mixed-use development. No timescales are identified for this work.

<u>Subway</u>

STPR2 Recommendation
N/A
NPF4 National Development
N/A
SPT Planned Activity
New Rolling Stock

First new were introduced in December 2023 and new trains are continuing to be phased into the system as testing and safety approvals complete. It is intended that the existing fleet will be phased out of operation during 2024. Only once all existing rolling stock has been replaced will it be possible to complete the full modernisation of the associated operating systems and achieve peak capacity.

Future Capacity
Due to the unique dimensions of the Subway, the new trains sets are the same length and size as existing trains. However, the carriages are open end-to-end increasing the train capacity to 300 passengers. In addition, the number of trains available will increase from 13 to 17, providing additional operational resilience in terms of train availability. Headway safety requirements mean the maximum number of trains that will be operational on each circle at any one time is seven, increasing the maximum trains per hour at each station, in each direction to 17. This would increase the potential peak capacity per hour to over 5000 in each direction.

Operational Hours
On completion of full modernisation, SPT will examine the potential for extended operating hours.

Clyde Metro

STPR2 Recommendation
STPR2 Recommendation: Clyde Metro (11); Metro transport systems include one of, or a combination of, bus rapid transit, tram, light rail and metro rail. These options would complement the service provided by traditional railways and may include the conversion from existing railways to tram or heavy metro.
NPF4 National Development
National Development 6: Urban Mass / Rapid Transit Networks - Clyde Metro This national development supports low carbon mass/rapid transit projects for Aberdeen, Edinburgh and Glasgow. To reduce transport emissions at scale, we will require low carbon transport solutions for these three major cities that can support transformational reduction in private car use. Development of the Glasgow 'Metro' and Edinburgh Mass Transit in these cities and their associated regions plus the Aberdeen Rapid Transit system are recommendations from the Strategic Transport Projects Review 2. This will support placemaking and deliver improved transport equity across the most densely populated parts of Scotland, improving access to employment and supporting sustainable investment in the longer term. It can function as part of a broader transport network that includes active travel, and this places importance on multi-modal hubs or transport interchange points. The type of interventions will be determined through the on-going development of business cases and studies but could include the provision of new systems or extensions to existing sustainable and public transport networks.
Transport Scotland, Glasgow City Region and SPT Planned Activity
Clyde Metro

The project partners are taking forward work to undertake the Case For Investment (CFI) over the next ~2 years. Initial stages including CFI Stage 1a and 1b have been commissioned through existing framework contracts. However, the CFI Stage 2 will be commissioned through the Clyde Metro Framework which offers multi-disciplinary services across 8 Lots between 2024 and 2027/28. This is being delivered drawing upon funding provided through the Glasgow City Region City Deal.

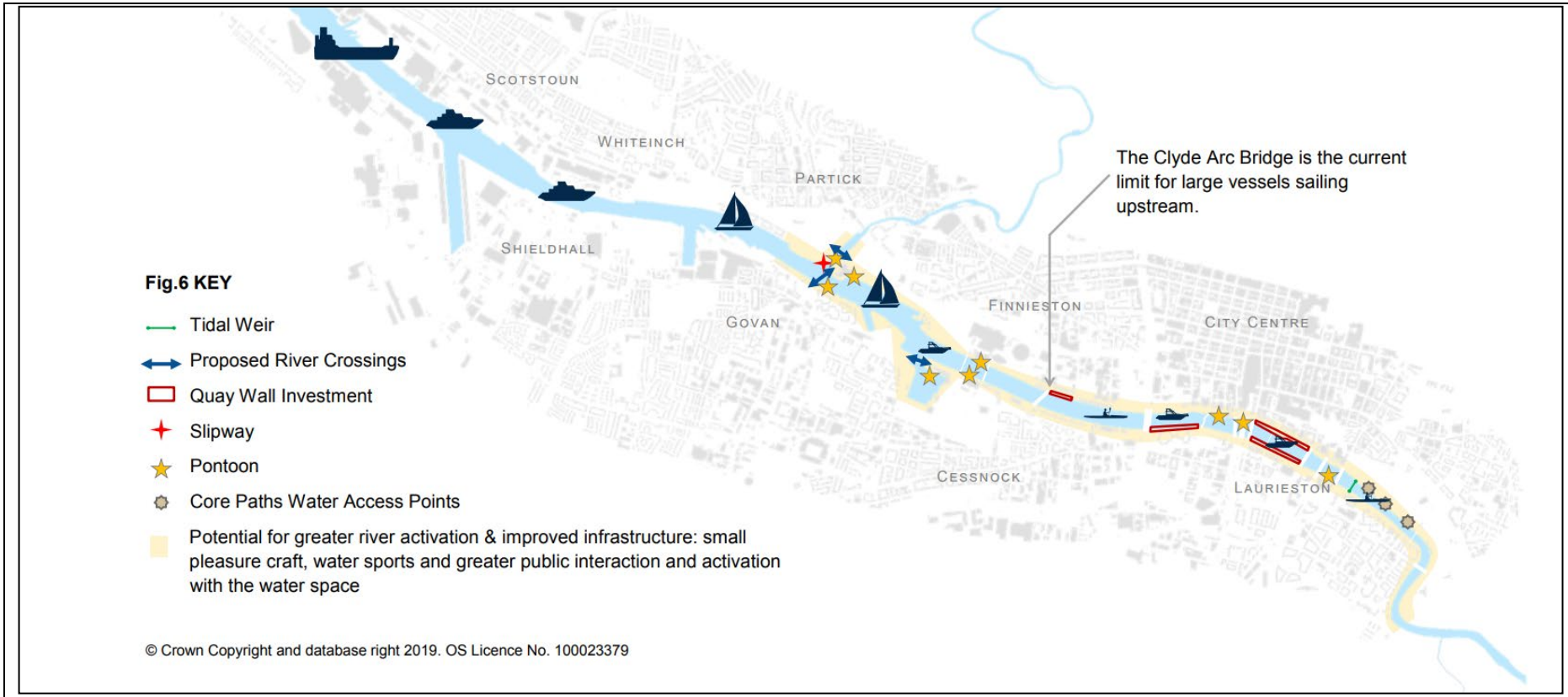
The CFI will develop the programme level business case and is an essential first step towards setting out the programme of projects which will make up the Clyde Metro over years to come. It will be prepared over ~2 years between March 2024 and January 2026 and includes the following work packages:

- CFI Stage 1a – Case for Change & Initial Option Development
- CFI Stage 1b – Client Advisory Services
- Clyde Metro Framework
- CFI Stage 2 – Programme Business Case

The CFI process will be informed by a range of workstreams including a STAG based appraisal, business case development, technical assessments, audit, assurance, engagement and consultation with the public and key stakeholders as well as statutory impact assessments.

Water Transport

STPR2 Recommendation
N/A
NPF4 National Development
N/A
Proposed Activity
There is potential for sustainable water transport infrastructure on the River Clyde and Forth and Clyde Canal. However this is subject to demand and deliverability. The potential to provide care path access points and greater river activation through improved infrastructure, including encouraging small pleasure craft, water sports and greater public interaction and activation with the water space have been written into the River Clyde Strategic Development Framework *A Vibrant River Activating the Water – River Clyde SDF*



Public Transport Connectivity

STPR2 Recommendation
STPR2 Recommendation: Improved public transport passenger interchange facilities (21) Improving the quality of passenger facilities at bus stations, railway stations and other transport interchanges encourages uptake of public transport and a switch from car use. This would include improving accessibility at bus stations and transport interchanges for people with reduced mobility. **STPR2 Recommendation: Framework for the delivery of mobility hubs (22)** Improving links between public transport services, active travel (walking, wheeling and cycling) and shared transport makes it easier for people, particularly those without a car, to get to and from their destination.

This addresses one of the main barriers to uptake of public transport services. Transport Scotland is keen to engage and collaborate on any potential Mobility Hubs or Mobility as a Service pilots.
NPF4 National Development
N/A
Glasgow City Council Planned Activity
Glasgow Transport Strategy 2022 – Spatial Delivery Framework • Mobility Hubs and Park and Ride – broad areas where Mobility Hubs would be desirable and associated criteria

Taxis and Shared Transport

STPR2 Recommendation
STPR2 Recommendation: Investment in Demand Responsive Transport and Mobility as a Service (20); Targeted investment to make it easier for people to travel, particularly those without access to a car, can help promote equality through fairer access to jobs and services.
NPF4 National Development
N/A
Glasgow City Council Planned Activity
Co Wheels Car Club An additional seventeen hire cars were due to be brought in over the course of 2023 to create a 71 strong pool of vehicles for more than 4200 members already signed up to the car club in Glasgow. Car share club vehicles can currently be found at 47 designated, on-street parking bays across Glasgow. A total of 17 Zonal parking permits are also being introduced that will allow car share club vehicles to be parked in 12 zones across the city. Work is also underway to look at how car club vehicles can be provided near to new housing developments.

Private Car

STPR2 Recommendation
STPR2 Recommendation: Expansion of 20mph limits and zones (10) Introducing more 20mph speed limits and zones at appropriate locations in cities, towns and villages can reduce speeding traffic, thereby reducing fear of road danger, which is a significant barrier to walking, wheeling and cycling for some people. **STPR2 Recommendation: Trunk road and motorway renewal for reliability, resilience and safety (32)** Trunk road and motorway renewal for reliability, resilience and safety – An M8 Bridges Strategy is in preparation. The objective of the strategy is to determine a deliverable programme of maintenance and refurbishment works to all assets over a period of at least 10 years. The project seeks to deliver “once in a generation” refurbishment works to bring all assets up to a good state of repair, including structures, surfacing, drainage, communications and electrical supply, minimising

unplanned interventions and maximising value for money. Liaison with Glasgow and other stakeholders is to be undertaken to ensure schemes are delivered with minimum disruption.

NPF4 National Development

N/A

Glasgow City Council Planned and Proposed Activity

Glasgow Policy on Road Building

- A key ambition of the Glasgow Transport Strategy (GTS) in achieving the Council's net-zero carbon 2030 goal, is to reduce car vehicle kms in the city by at least 30% by 2030.
- Upon adoption of CDP2 all proposals for new road construction will be considered against the requirements of (GTS) Policy 9: There is a presumption against new roads for the explicit purpose of capacity.

Roads Maintenance

The Annual Status and Options Report (ASOR) provides a means of identifying and prioritising the overall funding needs of each of the asset categories – carriageways, active travel infrastructure, road drainage, lighting, traffic signals, signs, lines and street furniture, structures (e.g. bridges), the Clyde Tunnel and ex GCC housing infrastructure. Approximately £20million is spent on investment in these assets every year.

20mph zones

The Council is continuing to deliver its 20mph programme, including for the City Centre, and will also give consideration to introducing 20mph speed limits, with no traffic calming, in appropriate areas. There are currently 1,400 roads in Glasgow that have a 20mph speed limit, which equates to a total length of 340km. There is currently an ongoing assessment of all 30mph roads in Glasgow to see if they meet with Transport Scotland's criteria making them suitable to be reduced to 20mph. Once these have been identified, there will be a roll out programme to reduce the speed limit on these roads.

City Centre Transport Plan 2022

- Achieve a 30-40% reduction in peak-hour private car traffic in the city centre by 2030

Controlled Parking Areas

Existing controlled parking areas cover the city centre, west end, pockets of the southside (particularly around Hampden Stadium) and along major arterial roads. Whilst a variety of additional controlled parking areas are being considered, these are subject to a statutory consultation process before being confirmed and introduced.

Glasgow Strategic Parking and Kerbside Management Plan 2023

As part of the Glasgow Transport Strategy (GTS) and City Centre Transformation Plan, Glasgow City Council developed a new strategic approach to parking. In the recently published GTS, Policy 82 states the intention to "progressively extend controls on on-road parking throughout the city based on a strategic approach".

This Glasgow Strategic Parking and Kerbside Management Plan (SPKMP) has been developed to support the management of parking by recognising the key characteristics and land uses which exist in different areas of the city. It sets out an overarching approach to managing parking and associated

kerbside operation in different environments across these areas.

In each zone, a hierarchy of vehicles has been identified and prioritised in five tiers according to the needs of the zone's characteristics and land uses. These vehicles have been grouped by type and purpose, with those given top priority commonly disabled users, emergency vehicles, buses (where applicable) and cyclists. Commuters in private vehicles are given the lowest priority in accordance with the Sustainable Travel Hierarchy and overall aims and objectives of the LTS.

There are a range of control measures and tools identified to assist in managing the car parking moving forward which will assist the council through:

- Management of who is able to park in any given location;
- Management of how long vehicles can park in any given location;
- Ensuring a turnover of parking bays to support economic activity;
- Seeking to optimise the use of a parking bay/streetspace to benefit the greatest number of users, whilst taking cognisance of local frontages;
- Ensuring appropriate provision for car club / car sharing schemes;
- Ensuring access for disabled users;
- Managing parking demand and car ownership levels; and
- Supporting environmental benefits by reducing vehicle access or encouraging more environmentally friendly vehicles

The SPKMP makes recommendations for the pathway to delivering further parking management, as well as recommendations for Glasgow City Council's next steps towards delivery of the SPKMP. The key recommendations made in this SPKMP include:

- A consistent approach to parking solutions
- Appropriate sizing of zones to discourage short car trips within future controlled zones
- Ensure appropriate enforcement is available to manage parking
- Investment in technology
- Annual reviews of parking and permit charges
- Developing off-street parking products to complement on street parking changes: and
- Lobbying national government to make changes to legislation outside the control of Glasgow City Council, including:
    - Use of camera enforcement for stationary parking offences
    - Time-based restrictions on disabled parking bays
    - Using geofencing to manage parking

Glasgow Transport Strategy 2022 – Park and Ride

- Broad areas of the city where enhanced and/or new Park & Ride capacity is desirable and associated criteria
- Public electric vehicle charging infrastructure – a spatial approach to mapping the transition

Glasgow Transport Strategy 2022 – Electric Vehicles

Work carried out for the Council by Motts McDonalds, funded by Transport Scotland, has suggested a significant uplift in the volume of public EV charging infrastructure is required in Glasgow to meet future demand, as with all areas of Scotland. This work has forecast that over a baseline of c350 public chargers in the city in 2023, c3500 will be required by 2026, and c7100 by 2030.

Work has also been undertaken on the spatial characteristics of preferred locations for destination chargers and residential chargers (the latter for use by those who do not have access to a driveway or private court and therefore do not have a charging option at home).

The Council's Public Electric Vehicle Charging Strategy and Expansion Plan sets out further detail and issues that require further work in order to determine the approach to delivering Electric Vehicle Charging Infrastructure in the city going forward.

Transport Scotland Planned Activity

M8 Bridges

- An M8 Bridges Strategy is to be prepared. The objective of the strategy is to determine a deliverable programme of maintenance and refurbishment works to all assets over a period of at least 10 years.
- The project seeks to deliver "once in a generation" refurbishment works to bring all assets up to a good state of repair, including structures, surfacing, drainage, communications and electrical supply, minimising unplanned interventions and maximising value for money. Liaison with Glasgow .and other stakeholders is to be undertaken to ensure schemes are delivered with the minimum of disruption.

M8

- Transport Scotland is investigating drainage from Junction 15 (Townhead) to Junction 19 (Kingston Bridge), which may result in a package of works. This is still to be determined. Refurbishment of up to four footbridges over the M8 between Junctions 21 and 23 from 2024-25. Consultation with GCC is being undertaken on phasing of the works and impacts on active travel connections across the M8 corridor.
- For the period 2024/2025, the following work is to be undertaken:
    - M8 J12 EB Offslip Barrier Replacement
    - M8 J11 WB Offslip Barrier Replacement
    - M8 EB J11 Patching between on and off slip roads
    - M8 J15 to J19 Central Reserve Barrier Replacement
    - M8 EB J10 Off Slip patching
    - M8 Jct 28a to Jct 28 EB Resurfacing
    - M8 Prior to Jct 25 WB Resurfacing
    - M8 Jct 28a to Jct 28 EB Resurfacing
    - M8 Junction 25-22 EB Resurfacing
    - M8 Prior to Jct 25 WB Resurfacing
    - M8 Junction 25-22 EB Resurfacing
    - M8 Prior to Jct 25 WB Resurfacing
    - M8 Jct 26 to Hillington Footbridge WB Resurfacing
    - M8 Govan Jct to Clyde Tunnel (Cardonald) WB Resurfacing
    - M8 Cardonald Jct to J26 Renfrew Resurfacing
    - M8 Jct 22 to Jct 23 Ibrox WB Resurfacing

- M8 J23 Ibrox to Govan Jct WB Resurfacing
- M8 Jct 12 WB Off Slip Resurfacing

Future of the M8

- Glasgow Strategic Plan 2022 to 2027 and City Centre Transport Plan identify the need to commission research and explore options to reduce the impact of the M8 on the city centre, and review opportunities to re-engineer other roads infrastructure to become more people-friendly including options for long-term replacement.
- As detailed within the response to the Council on the 9th March 2023 to the Townhead District Regeneration Framework, and other planning and land use documents prepared by Glasgow City Council, a holistic approach is required to be undertaken in any appraisal work relating to strategic infrastructure improvements in collaboration with Transport Scotland. Any future appraisal work will need to cover the operational impact on the motorway but also any potential impacts on the local road network and land-use planning aspirations.
- In April 2023, Glasgow City Council (GCC) passed a motion to address and reduce the impact of the M8 on the city centre.
- Transport Scotland initially met with GCC on 23 August 2023 to discuss the motion and agreed to provide comment on a speed limit reduction on the city centre stretch of the M8, consider any signing improvements and communications to encourage people to re-route via the M74, share any data on trips diverted as a result of Woodside Viaduct works, explore opportunities for greening along the M8 through the city centre and consider air quality monitoring in the vicinity of the M8. At this meeting it was also agreed that there would be an annual meeting between GCC and TS on the matter.
- Transport Scotland is also committed to continue to consider the asks of the council's motion through the development of STPR2 Recommendation 14: Provision of strategic bus priority measures.
- As affirmed in STPR2, the Scottish Government is committed to the reallocation of roadspace as a measure to reduce dependency on private car and promote more sustainable forms of travel and rebalance the spaces and places where we live.

M8 Woodside Viaducts

- The M8 Woodside Viaducts are a vital element of the trunk road network and their repairs are extremely complex. The works involve installing props at 23 separate locations which are programmed for completion in early 2026 . This work will facilitate a permanent repair of the structures. The final design for the permanent repairs on Woodside Viaduct is yet to be completed, which will then inform the overall project programme.
- For more information on the Woodside Viaducts work please visit the project website and virtual town hall for the most recent updates. https://swtrunkroads.scot/major-works/m8-woodside-viaducts-j16-j17/

M74

- Following the reprofiling of the northbound M74 carriageway at Junction 10 to improve road safety, at various sections the Operating Company is looking into accidents in wet and dark conditions including a scheme ongoing from Junction 1 to Junction 3A. This includes studs and markings for construction. Investigations for the southern section are to continue. There are proposals agreed for reprofiling, studs and markings for installation between Junctions 10 to 11 and further collision investigations between Junction 7 and Junction 8

M74 and M77

- Various sites with Vehicle Restraint Systems (crash barriers) in poor condition. Ongoing assessment and improvement is programmed.

Managed Motorways

- A draft Strategic Business Case (SBC) for Glasgow Managed Motorways was produced in November 2021 to identify options for improving the operational performance of key sections of the Glasgow motorway network including consideration of bus priority on the M8, M80, M77 and M74. The traffic data and modelling that informed the appraisal process in the draft SBC was based on pre COVID-19 data. There has been an interim period of changing travel patterns and traffic flows on the motorway network, as people have adjusted their travel behaviour to reflect increased and more routine working from home and changes to public transport services.
- Since the draft SBC was developed there has been a refocus of policy towards climate change, reducing child poverty and supporting a Just Transition and National Economic Transformation including publication of NTS2 and the Delivery Plan, the Climate Change Plan, National Planning Framework 4 and most recently STPR2. In addition, Glasgow City Council's City Centre Transport Plan (2022) includes a commitment to explore future possibilities to reduce the impact of the M8 motorway corridor on the city centre.
- In September 2021 @ReplacetheM8 lodged a submission to the Citizen Participation and Public Petitions Committee (CPPC) calling on the Scottish Parliament to urge Scottish Government to commission an independent feasibility study to investigate scenarios for reducing the impact of the M8 between the M74 and Glasgow Cathedral. The CPPC agreed to close the petition on 20 March 2024 as it was recognised that discussions are ongoing between Transport Scotland and Glasgow City Council. The position is to be reviewed in March 2025.
- Given the changes in the policy landscape and the altered pattern of travel demand, Transport Scotland is reflecting on these important changes in the business case process to ensure that they are fully captured. Taking this action will result in the programme for this work taking longer than previously anticipated. However, this work aims to ensure that the business case remains robust.
- Transport Scotland's intention is to work with GCC to evolve the Glasgow Managed Motorways study (in line with STPR2 Recommendation 14: Provision of strategic bus priority measures), to holistically consider the reallocation of road space and to consider the M8 aspirations of GCC. We are currently scoping this work with timescales to be developed.

Freight

STPR2 Recommendation
STPR2 Recommendation 45: High Speed Rail relates to Transport Scotland to continue work with the Department for Transport. Transport Scotland is taking stock of the recent announcement from the UK Government and what this means for Scotland. In relation to rail freight and STPR2 Recommendation 44, it is important to incorporate rail freight in land use planning decisions, ensuring that holistic and robust consideration is given to the potential for strategic rail freight sites, whether it is an expansion of an original site or the future development of a new one.
NPF4 National Development
N/A
Planned Activity
Glasgow Transport Strategy 2022 – Spatial Delivery Framework

• Freight distribution hubs – broad areas where desirable, and criteria for these and last mile delivery commentary
City Centre Transport Plan 2022 • Deliver improvements for servicing (e.g. goods, deliveries and waste collection) to improve the vitality of the City centre

6. Further improvements required?

Section 2 and 5 and the CDP Mapping Hub set out the existing and proposed transport network in Glasgow. Given the extensive nature of this, and the recent publication of a range national, regional and Glasgow City Council transport related strategies, this requires delivery before further projects could be identified. Any further improvements would be identified through national, regional and Glasgow City Council transport related strategies and taken into account in producing CDP2.

7. Deliverability

As set out in section 5, a significant programme of infrastructure is planned in Glasgow. This will require to be taken account of in allocation of sites in CDP2 and in directing development to accessible locations.

Delivery of transport infrastructure will take place through the following means:

- Transport Scotland funded activities – The Active Travel Transformation process initiative by Transport Scotland will see a change in how funding of active travel and behaviour change measures is delivered, including more direct funding as per the Verity House agreement. These details are still being finalised at the time of writing by Transport Scotland.
- SPT will have a role in delivering walking and cycling infrastructure.
- The Glasgow City Region City Deal is enabling new active travel infrastructure including Sighthill and Govan/Partick bridges, and the Avenues programme in the City Centre.
- Infrastructure will be delivered by specific operators such as Scot Rail, Network Rail, First Glasgow and other bus operators. The Glasgow City Region Bus Partnership will support provision of bus infrastructure and continue to seek funding via Transport Scotland's Bus Partnership Fund (though it should be noted this is paused for 2024/25 due to the Scottish Government budget process).
- Through the development plan – on site delivery, site adjacent delivery, and financial contributions through development towards transport infrastructure required by the scheme.

The availability of funding and the resourcing of delivery will have significant bearing on the roll out of proposed infrastructure as set out in section 5 and therefore the ability to deliver on planning policy aims supporting local living and sustainable transport modes in all areas of the city.

CDP2 will need to consider/deliver:

- The best locations for new development in order to reflect the sustainable travel hierarchy and sustainable investment hierarchy, as well as the relationship between digital accessibility, spatial proximity and physical mobility.
- CDP2 will need to prioritise locations for future development that can be accessed by sustainable modes and consider how to promote a place-based approach to reduce car-dominance. City Development Plan will continue to prioritise development where possible in areas of high

accessibility to existing and planned sustainable transport. A methodology for showing areas of high cycling accessibility will be developed. This should include a review of land uses that rely on and potentially encourage car dependency, such as drive-through.

- Delivery of local living and Liveable Neighbourhoods within the 20 minute neighbourhood concept.
- Opportunities to reduce severance to walking and cycling routes through planning allocations and requirements.
- Support for delivery of transport infrastructure, for example safeguarding of land, whilst taking into account environmentally protected areas.
- Any policy required for delivering the Clyde Metro, for example, to safeguard necessary land and infrastructure. NPF4 is clear that National Developments are intended to be examples of the Place Principle and placemaking approaches supported by local development plans as delivery mechanisms and where required using planning obligations and compulsory purchase powers. Clyde Metro as a project proposal (NPF4 and STPR2) shall require other relevant Local Planning Authorities (LPAs) to provide a policy position within their local development plans; subject to respective plan preparation towards next plan adoption. Thus, the Clyde Metro Case For Investment will include stakeholder engagement seeking to establish necessary engagement for the Clyde Metro project with all relevant LPAs and their respective local development planning position.
- Policy required to encourage and support delivery of shared mobility solutions (such as car club and shared bike scheme facilities and mobility hubs) in new development. Set out policy on the incorporation of shared mobility options into new development in the next City Development Plan to improve clarity and increase uptake in new development.
- The role of developer contributions in delivering transport infrastructure needed for new development.
- Design guidance and criteria needed to support delivery of dense neighbourhoods with sustainable transport networks.
- Inclusion of a new spatial approach to parking management as set out in the GTS Spatial Delivery Framework, where associated with development.
- Inclusion of Electric Vehicle Charging Infrastructure (EVCI) as part of new development and policy regarding EVCI and alternatively-fuelled goods vehicles (such as green hydrogen and electric), particularly in close proximity to the strategic road network.
- The Subterranean nature of the Subway means that development above or adjacent to the tunnels of the station chambers may have an adverse impact. The depth and the condition of the ground above the tunnels and station chambers varies considerably around the system. Therefore, any works adjacent to or above tunnels and station chambers could have the potential to impact on the safe operation of the Subway infrastructure. Development above or adjacent to the Subway tunnels would require to be subject to risk assessment by SPT prior to the commencement of works on site.
- Policy regarding Transport Assessment.
- Policy required to support freight infrastructure and goods movement, including micro-delivery solutions.

In producing CDP2 Proposed Plan the following activities are required:

- Site Appraisal process to take cognisance of the sustainable travel hierarchy and sustainable investment hierarchy. Each site considered for inclusion in CDP2 will require site appraisal and consideration of its location in relation to the transport network.
- Related to this, transport appraisal is to be carried out in conjunction with Transport Scotland and SPT. NPF4 states that a Transport Appraisal should inform the spatial strategy by appraising the impact of the potential spatial strategy options on the transport network, in line with Transport Scotland's Development Planning and Management Transport Appraisal Guidance. It should determine the potential impacts of development on the

transport network and mitigation to address adverse impacts, how they will be funded and who should deliver these. The contents of this Transport Audit will be used to inform CDP2 spatial strategy on the transport network including identifying any potential cumulative transport impacts and deliverable mitigation proposed to inform the plan's infrastructure first approach. Transport Scotland has informed Local Authorities that their Development Planning and Management Transport Appraisal Guidance is currently being revised in alignment with NPF4 and the LDP Guidance and will be renamed DPTAG upon its publication in 2025. The council will continue to collaborate with Transport Scotland to ensure that a proportionate Transport Appraisal is conducted in accordance with this new guidance to inform CDP2.