Transport and Environment Committee

10.00am, Thursday, 1 February 2024

Our Future Streets – a circulation plan for Edinburgh

Executive/routine	**Executive**
Wards	**All**

1. Recommendations

1.1. It is recommended that Committee:

1.1.1. Agrees the Streetspace Allocation Framework (SAF) aims, revised principles and mapping (as set out in Appendix 1);

1.1.2. Agrees to take forward an enhanced plan for Edinburgh City Centre Transformation (ECCT) including an experimental closure of the Cowgate to some or all through traffic in 2024;

1.1.3. If recommendation 1.1.2 is agreed, notes that a further report will be prepared for Committee with a programme for implementation and an associated Operations Plan for the city centre;

1.1.4. Agrees to progress designs for an integrated street upgrade for the A8 as a key corridor from Roseburn to Gogar, incorporating a transformation of St Johns Road as a shopping street for people, better provision for people walking/wheeling, protected cycling infrastructure and measures to improve bus journey times and reliability; and

1.1.5. Agrees the proposed outline approach to investment for 'Liveable Neighbourhoods'.

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EDINBVRGH
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Report

Our Future Streets – a circulation plan for Edinburgh

2. Executive Summary

2.1. This report summarises the outputs of Our Future Streets (formerly known as a ‘circulation plan’).

2.2. It recommends adoption of a Streetspace Allocation Framework (SAF). The Framework seeks to ensure that limited space on the city’s streets is used to best effect, in line with the aims and objectives of the City Mobility Plan (CMP), seeking ito address the Climate and Nature Emergencies, with individual projects and initiatives always taking the SAF as the starting point.

2.3. The report recommends taking the Edinburgh City Centre Transformation (ECCT) further, with the aim of delivering a thriving, people-friendly, nature positive and climate adapted centre that works better for residents, businesses, shoppers and visitors and facilitates further investment in the expansion of the city’s tram system. Achieving this requires removing through traffic from a significant area, though retaining access for all.

2.4. Complementing the SAF and city centre proposals, the report recommends adopting a ‘place-based’ approach to future delivery - with future projects’ starting point being to address all issues on the street concerned. Following a citywide prioritisation, the report includes a proposal for an integrated street improvement project on the A8. It also proposes a pedestrian-oriented Liveable Neighbourhoods programme, aligned with the Council’s 20-minute neighbourhood strategy.

3. Background

3.1. Good progress has been made in improving the city’s streets’ so they are more attractive places that help move people around more efficiently and more sustainably. However, Edinburgh faces many ongoing transport challenges across its network of streets including congestion, vehicular dominance, occasional flooding and harmful emissions that negatively impact on public health and contribute to climate change. Edinburgh’s population is growing by 6.6%, three times the rate of Scotland, which risks worsening these impacts without action.

3.2. The Council's adopted policies and supporting evidence indicate that change is required. The Council's City Mobility Plan (CMP), Edinburgh Street Design Guidance (ESDG), Strategic Green Blue Network Plan, adopted Local Development Plan and Proposed City Plan 2030 aim to improve provision for place, pedestrians, and cyclists, making streets safer, managing parking, and protecting and strengthening public transport provision whilst adapting the streets to the known risks of climate change. The city's target to reduce car kilometres by 30% is an important step towards delivering a net zero carbon city by 2030, but scenario testing indicates further measures will be required to do so (see CMP 1st review report).

3.3. To realise the CMP's objectives, a just transition and the city's 2050 Vision, many of the city's streets will need to re-designed so they support more equitable outcomes. Our future streets must follow the principles of sustainable development, simultaneously providing better economic, social and environmental conditions for all:

3.3.1. For businesses, the aim is to provide the most attractive and competitive environments, with 21st century operating and servicing that supports high quality placemaking and sustainable modes;

3.3.2. For everyone, the aim is to improve accessibility across all parts of the city and remove the barriers to travel regardless of need or ability; and

3.3.3. For the environment, the aim is to address the Climate Emergency and Nature Emergency by redesigning streets and, if necessary, the neighbourhood area. This would better reflect knowledge about surface water flooding and how green infrastructure can help create more resilient, nature positive places.

3.4. In February 2023, Committee agreed to continue developing Our Future Streets (then known as a 'circulation plan') and agreed to consult on its emerging outputs alongside draft CMP actions across the themes of active travel, air quality, parking, public transport and road safety. The consultation outcomes were reported to Committee in October 2023.

3.5. A biennial review of CMP, taking into account consultation feedback, and a report recommending consultation on extending Edinburgh's tram network are also being considered by today's Committee.

3.6. As proposed in February 2023, work has now been undertaken as follows:

3.6.1. Further development on the SAF, in particular applying the decision-making principles to refine network proposals, in parallel with emerging stakeholder and public consultation feedback as well as further data-based technical work;

3.6.2. Exploring and appraising options for taking ECCT further, including modelling to determine the impacts of varying levels of intervention;

3.6.3. Consideration of the approach to future investment on Edinburgh's main strategic corridors;

3.6.4. Developing proposals to deliver Liveable Neighbourhoods; and

3.6.5. Initial stages of the green-blue network mapping to understand how the city may address climate adaptation and the Nature Emergency.

4. Main report

A strategic 'place–based' approach to investing in the city's future streets

4.1. In working towards its CMP objectives for Our Future Streets, the Council is taking forward a substantial programme of investment in public transport, active travel and placemaking. Key projects and programmes are summarised in the related reports on today's agenda.

4.2. The proposals in this report would involve Edinburgh adopting a similar approach to other successful cities that have adopted a citywide strategic approach to allocating street space. These approaches are often combined with a clear decision to prioritise pedestrians and streets' place functions throughout their city centre. In summary, this would include:

4.2.1. Using a strategic method – the SAF - as a starting point for the design of all future street projects, no matter their funding stream(s);

4.2.2. Adopting a place-based approach to investment throughout the city, with all projects aimed at delivery in line with the SAF, and a move towards integrated corridor-wide investment that takes into account the full range of Council priorities;

4.2.3. As part of the place-based approach, there is the potential to take a more ambitious version of ECCT forward, aimed at delivering a truly people-friendly centre. This could involve removing through car traffic from an extensive area, prioritising space for a climate adapted public realm, for pedestrians, for safe cycling and for reliable and efficient public transport (including, in the future, the proposed expansion of the tram network from north to south); and

4.2.4. A pedestrian-focused package of investment in neighbourhood streets, integrated with other measures to support '20-minute Neighbourhoods'. This would focus on measures like dropped kerbs, narrowing side road junctions, better pavements around local shops and new crossings, managing flooding and greening streets, tackling through-traffic where there is local support, and helping to deliver cycling on quiet routes. The main aim would be to deliver streets and pavements that allow everyone to get around easily in their local neighbourhood.

Streetspace Allocation Framework

4.3. The SAF is a method-based approach that principally consists of maps and principles that work towards clearly defined aims.

4.4. These aims, maps and principles, all build on the work previously reported to this Committee and are presented in Appendix 1.

4.5. Delivering better conditions for walking/wheeling, cycling and public transport that is suitable for a future climate requires space for wider pavements, for cycle tracks, for bus priority lanes and for green-blue infrastructure (such as rain gardens and street trees). As such, these are often in competition with each other, and can also be in competition with space for parking, for loading, for placemaking, for sustainable drainage measures and for moving general traffic.

4.6. The SAF principles seek to achieve a balance between the demands on space, by prioritising place, walking/wheeling, cycling and public transport over private motorised traffic and parking.

4.7. In some cases, necessary trade-offs will mean a significant reduction or removal of parking on main roads and high streets in the city, and changes in how loading works for businesses. The approach would always maintain access for businesses and those with mobility issues. This approach was supported in the CMP consultation, both in the online surveys, market research and in stakeholder workshops.

4.8. Maps will outline the desired place function of streets for walking/wheeling, cycling, bus, tram and general traffic networks, as well as the emerging green-blue networks. There is also an ‘integrated network map’ which provides guidance on allocating street space between these various functions.

4.9. The place and movement maps identify what are primary, secondary and local networks. Definitions of each network level are detailed in Appendix 1.

4.10. The place and walking/wheeling networks are different in nature to the other networks. The primary and secondary place network consists of streets where there is the greatest need for additional space to cater for non-movement functions, such as seating and greening (generally streets with buildings that generate activity, such as shops, other services and businesses). The primary and secondary walking/wheeling network identifies streets which have higher levels of pedestrian movement, as well as some of the key sources of this movement such as schools.

4.11. The maps have been developed using the following process:

4.11.1. Initial desired networks for walking/wheeling, cycling, public transport and general traffic were set alongside mapping of overall street width (including pavements); and

4.11.2. Where there was insufficient space to accommodate all desired uses with an acceptable level of service (this applies to most major streets and roads), the

desired networks were reviewed taking account of the overall aims and trade-off principles of the SAF.

4.12. The main changes resulting from the review are to the networks for general traffic and cycling. These networks will also present the greatest opportunities for adapting the city to the future climate by occasionally using some roads as conveyance routes and incorporating Sustainable Drainage Systems (SuDs) and tree planting. Above-ground SuDs measures include raingardens, swales which provide drainage, amenity and biodiversity functions.

4.13. In the city centre, and in town centres where there is an alternative route (Portobello, Gorgie/Dalry), it is proposed to consider managing general traffic as part of the design process. This should deliver a much better street environment and better conditions for public realm, public transport, climate resilience, walking/wheeling and cycling.

4.14. Wherever possible, the SAF aims to provide networks that allow general traffic to get around via clear and coherent routes. Optimising some routes helps create space for street life, servicing/loading, improving accessibility and improving journey times by public transport.

4.15. The cycle network has been amended for two main reasons:

4.15.1. To account for the impact that providing segregated space for cycling would have on place, walking/wheeling or public transport; and

4.15.2. To take account of streets where there is insufficient space for segregation, regardless of what other changes are made - this has resulted in many sections of route being amended from primary to secondary.

4.16. In addition to revised network maps for place and each mode of transport, an integrated network map has been prepared. This indicates the future nature of provision expected for various means of transport and the ‘place’ function of streets across the city.

4.17. It is not possible to resolve all conflicts by moving networks. The integrated network map and the SAF principles seek to guide dealing with remaining conflicts.

4.18. To complement the SAF mapping, cross-sections would be prepared to support the delivery of integrated networks (example in Appendix 2). These would form a starting point for future design work and engagement. They would give a clear starting point for the design process: on pavement width; width for ‘place’ functions; width for loading or parking; and provision of bus lanes and/or segregated cycle tracks. However, they would be the start rather than the end of the design process as every project will involve tailored local engagement and consultation to ensure that projects serve the needs of each individual street and local communities as much as possible.

4.19. To provide easy access for the public and stakeholders, it is intended to publish the SAF and relevant supporting information on the Council’s website by Summer 2024.

City centre

4.20. Conditions for pedestrians on many city centre streets remain unacceptably poor and this was reflected in the 2023 CMP consultation that showed significant support for measures to address this issue. The previously agreed ECCT proposals seek to make improvements in the city centre but would still leave general traffic passing through its core - most notably on the Bridges corridor and on the Cowgate. On both of these streets, pedestrian numbers are such that for large parts of the year there is crowding and pedestrian congestion.

4.21. During busier times, many pavements are so busy that people routinely spill on to (sometimes heavily-trafficked) carriageways simply to make progress. On the Cowgate in particular, pavement widths are wholly inadequate. Pedestrian crowding impacts bus services, particularly on the Bridges corridor during the busiest summer period.

4.22. To address these issues by seeking to re-allocate sufficient space to pedestrians and deliver a much better street environment, it is essential to reduce the volume of general traffic passing through the centre. Such a reduction, and associated changes in travel habits to and through the city centre, can make a material contribution to achieving the target of 30% reduction in car kilometres by 2030.

4.23. Within this context, the February 2023 report noted that it was intended to explore taking ECCT further by considering a city centre that is far less vehicle dominated.

4.24. To this end, four options have been appraised based on the SAF approach. Broadly, the position described above is a consequence of providing space for primary/secondary general traffic on streets which also have a primary place function; are primary walking/wheeling and public transport routes; and desirably would also be primary cycle routes.

4.25. In the city centre, there is the opportunity to relocate general traffic away from streets where it has the most negative impact. Each of the four options takes a further step in seeking to remove intrusive through traffic and thereby release street space for other uses and deliver quieter, less polluted, inclusive and more people-friendly streets. The options, and their appraisal against objectives, are mapped and described in detail in Appendix 1.

4.26. Following appraisal, including relevance to the proposed SAF, the option which emerged as the clear preferred option (hereafter referred to as option C) builds on the 2019 ECCT proposal – incorporating the Meadows to George Street, George Street, Lothian Road and Old Town Streets projects. It includes two key additions, removal of through general traffic from the Bridges corridor – complementing the Granton to Bioquarter tram proposals, and the removal of through general traffic from the Cowgate and Canongate (see chapter 5, Appendix 1).

4.27. Option C would create an extensive area between Lothian Road, Lauriston Place, Holyrood Park and Queen Street and without through general/car traffic, enabling:

4.27.1. Efficient bus services, a better pedestrian environment and safer cycling conditions on the Bridges;

4.27.2. Pedestrianised/ pedestrian priority streets in the core of the Old Town, including Canongate, Victoria Street, Waverley Bridge, Cockburn Street, Grassmarket and Cowgate;

4.27.3. A much better experience for those shopping, visiting, walking/wheeling around, or living in the area, with wider pavements, streets that are easier to cross and a quieter environment with less air pollution;

4.27.4. Better operating conditions for buses;

4.27.5. Safer conditions for cycling, with segregation and/or safer, low traffic, streets; and

4.27.6. Clarity for drivers that they can access this area of the city and all the important facilities within it, but that they cannot drive through it.

4.28. More widely, option C is a key component in moving towards the Council's target of reducing car kilometres by 30%. By reallocating space away from general traffic and towards other ways of getting around, this option would significantly shift the balance in favour of public transport, walking/wheeling and cycling for journeys to and across the city centre.

Times of operation, servicing, and complementary parking control changes

4.29. A key lesson from other cities that have implemented similar approaches is the importance of measures being clear, consistent and easy to understand. Option C would create a clearly defined area that affected vehicles would be able to drive to, but not through.

4.30. Clearly the centre and its businesses need to continue to function effectively and efficiently alongside changes to how traffic circulates, and work is underway on a City Centre Operations Plan. Subject to Committee approval, further work will explicitly address the delivery of option C and associated restrictions for various classes of vehicle. It will do so across the themes of accessibility (e.g. residents, visitors, businesses, those with mobility issues, permitting requirements), deliveries (e.g. timing of restrictions, cargo bike strategies, consolidation) and buses (e.g. tour buses, coaches, night buses). A report on the next stages of the Operations Plan will explore these topics and will be developed in discussion with stakeholders and to be brought to Committee by autumn 2024.

4.31. At present, parking restrictions in the city centre finish at 6.30pm, and on Sundays do not start until 12.30pm. The resulting uncontrolled parking creates worse conditions for pedestrians, hinders public transport competitiveness, encourages car use over other forms of transport, and removes the protection afforded by residents parking bays. Consequently, it is proposed to extend the hours of operation of controlled parking in parking zones 1-8 into the evening, seven days a week and to review morning start times.

4.32. In developing the recommended proposal, work is underway to consider implications for delays and potential displacement. This includes interactions with other proposals such as Lothian Road and Historic Environment Scotland's future management of Holyrood Park and resilience issues (e.g. construction projects and roadworks).

Potential delays and displacement

4.33. Initial modelling work has found that option C is deliverable and compatible with the Council's 30% car kilometre reduction target. It is forecast to significantly reduce bus journey times on the Bridges corridor. However, additional pressure would be placed on Lothian Road and some streets to the east of the centre (see below).

4.34. Where the potential for increased bus delay is forecast, development work on the Operations Plan would seek to minimise this, with the aim of delivering an overall benefit to bus operations.

4.35. In addition, the clarity of the approach, improvements in conditions for walking/wheeling and cycling, and targeted reduction of parking provision, should help deliver overall reductions in traffic levels that will enable satisfactory travelling conditions for general traffic.

Interaction with other proposals, including Meadows to George Street, Lothian Road and Holyrood Park.

4.36. Option C assumes implementation of the Meadows to George Street and George Street projects. Development work is currently underway for Lothian Road, with a view to consulting in early 2024. Option C is likely to require retention of more street space for buses and general traffic on Lothian Road than if the Bridges corridor were to remain open for through general traffic. Nevertheless, the Lothian Road project can still bring forward substantial improvements in conditions for walking/wheeling and cycling, protection of buses from delays, and for example a much better connection between Festival Square and the Usher Hall/Theatre Quarter.

4.37. To avoid the most significant impacts on circulation of general traffic, option C would require the Holyrood Gait - Queens Drive - Horse Wynd connection within Holyrood Park to be open to traffic, potentially including goods vehicles. Other street sections, notably the Holyrood Gait to Pollock Halls connection, also interact significantly with option C. To date, all work has been carried out in close co-operation and liaison with Historic Environment Scotland and their plans for the street network within Holyrood Park. This will continue and further reports will give more detail.

Complementary measures to protect adjoining communities

4.38. Development work has considered impacts on adjoining communities. Some impacts are predictable, and measures such as street closures would be brought forward as part of option C to address these.

4.39. However, there is a high level of uncertainty in other impacts (for example potential traffic displacement into the Second New Town) and these may not materialise to any significant extent. Consequently, it is proposed to develop contingency plans for measures that, in response to traffic monitoring, could be implemented using experimental traffic regulation orders at short notice.

Learning from other cities

4.40. Other cities have used frameworks to allocate street-space strategically for long term planning, most notably in Amsterdam, Netherlands ('Plusnet') and Auckland, New Zealand ('Future Connect'). Such approaches can help stakeholders and decision-makers better understand the complexities of allocating street-space and support the delivery of integrated networks for all modes.

4.41. For historic city centres, Ghent (Belgium) provides a useful case study with their 2017 circulation plan. This restricted through access for cars but maintained access to most streets, unlocking significantly improved street environment for placemaking, pedestrians, cycling and public transport. Importantly, the 2017 circulation plan was implemented over one weekend following two years of preparation, robust network planning and was well communicated to users before changes were made.

4.42. Edinburgh has unique circumstances which is why a bespoke approach is being taken in accordance with the city's policy objectives.

Corridors

Applying the SAF and place-based approach to active travel, public transport and other upgrade programmes

4.43. In parallel with the SAF it is proposed to move, as fully as possible, towards a 'place based' approach to investment. What this means in practice is that all projects would take into account the full range of the Council's objectives for streets, no matter what the initial impetus for a project, or the funding stream financing it.

4.44. An important part of the place-based approach would be to develop corridor briefs (see paragraph 4.18 and Appendix 2).

4.45. Fundamental to the place-based approach will be its application to the expansion of the tram network.

4.46. Applying this approach in the current funding landscape will be challenging due to its mode-specific nature. Significant engagement with Transport Scotland, and intermediaries for Transport Scotland funding (such as Sustrans), will be needed in furtherance of a fully integrated approach. It is also proposed to engage with other Councils interested in an integrated place-based approach (for example, Glasgow City Council is also taking forward a SAF).

4.47. In areas that have been identified as high risk for surface water flooding, project scopes will be expanded as necessary to ensure a combined approach to street and water/biodiversity management.

Applying the SAF and place-based approach to renewals

4.48. As noted above, the Council's biggest capital investment in streets is its roads and pavements renewal programme. The primary objective of this programme is to keep the infrastructure in acceptable (preferably good) condition.

4.49. It is often significantly more expensive, and requires much more design and other preparatory work, to make major changes to a street as part of a renewals project. Recognising this, a recent report to Committee noted that the 2023/24 Carriageway and Footway capital programme would only incorporate basic street design improvements, such as dropped kerbs. Nonetheless, carrying out major street changes in co-ordination with carriageway and footway renewals can present economies of scale and reduce the disruption associated with carrying out two sets of works in the same place. It can also help prepare the city for the future climate.

4.50. With the above in mind, and building on recent practice, it is proposed to adopt the following approach to carriageway and footway renewals projects moving forward:

4.50.1. Regular review of the forward programme to identify projects with the greatest potential to take a whole street approach (projects in Portobello and Dalry are currently being taken forward on this basis); and

4.50.2. Adoption of the place-based approach, SAF and street design guidance to the renewals programme, with a view to:

- Making the most of opportunities to deliver improvements at the same time as carrying out renewals;
- Securing additional external finance to fund enhanced projects; and
- At the same time, ensuring that essential renewal works can be carried out in a timely manner.

4.51. Taken together, the above will result in a programme where some projects (including those deemed urgent due to factors such as rapid weather-related deterioration in condition), will progress with minimal changes to the current street layout, many with modest changes, but some will be selected for a more comprehensive approach. All will aim to contribute to the direction of travel towards the future streets vision set out in the SAF.

Strategic appraisal of main corridors – a new proposal for the A8

4.52. In moving towards the place-based approach, an appraisal of the need and opportunity for integrated investment on key corridors has been conducted. This appraisal is summarised in chapter 4 of Appendix 1.

4.53. The A8 emerges from this appraisal as the highest combined priority for investment. Subject to securing funding and associated resource, it is proposed to initiate steps towards progressing an integrated project encompassing the following elements:

4.53.1. A town centre improvement for St Johns Road, focussing on better conditions for shopping, walking/wheeling and cycling;

4.53.2. A safe cycling connection, as far as possible segregated from motorised traffic, along the whole route (extending City Centre West to East Link west from Roseburn);

4.53.3. Bus priority at junctions and using bus lanes to best effect to bypass congestion whilst reallocating some space to walking/wheeling and cycling (integrating into the project work identified through the Bus Partnership Fund Strategic Business Case);

4.53.4. Major junction reconfigurations at Maybury and Drumbrae, supporting other measures; and

4.53.5. Subject to further assessment and local consultation, complementary measures on surrounding residential streets.

Neighbourhoods

4.54. A key theme of the Council's 20-minute neighbourhood strategy is 'improving sustainable and active travel access to services and facilities'. Examples relating to walking/wheeling include dropped kerbs (or sometimes raised crossings/ continuous footways), 'tighter' junctions – reducing crossing distances on side roads and crossings of busier roads.

4.55. The Council's approach to most walking/wheeling-related actions outside the city centre has tended to be reactive, responding to requests from communities or individuals, for example for new or better crossings. This 'bottom up' approach does have value in that it can address needs identified by others, but it can also lead to piecemeal and uncoordinated change.

4.56. The scale of improvements needed to deliver good quality access to local facilities is considerable. For example, there are around 17,000 substandard or completely absent dropped kerbs in the city.

4.57. It is now proposed to address this, and other local improvements, in a more strategic way, whilst continuing to respond to community and public requests. A programme of area-wide 'Liveable Neighbourhood' initiatives is proposed, focussing on measures like dropping kerbs, narrowing side roads, better pavements around local shops and new crossings, and incorporating nature-based solutions to address climate adaptation measures.

4.58. Travel to school routes, and associated school street closures would also be considered, as well as routes to bus stops. Issues of intrusive through traffic would also be addressed where there is local support, as would measures such as crossings to help deliver cycling quiet routes. The main aim would be to deliver streets, pavements and places that allow everyone to get around easily locally, improving peoples' health and wellbeing.

4.59. An assessment of suitable areas has been undertaken, relevant factors (including the proportion of local populations who are elderly, disabled, whether areas suffer from multiple deprivation, and car ownership) have been considered, along with the

potential for integration with initiatives that are already in progress. This has resulted in the selection of priority areas, for example, in Pennywell/Muirhouse and Niddrie/Craigmillar.

5. Next Steps

5.1. Subject to Committee approving the report recommendations, most of the following next steps are dependant, to a greater or lesser extent, on funding bids and associated increases in employee resources.

City Centre

5.2. The approach set out in this report proposes a staged implementation of option C, building on Edinburgh City Centre Transformation.

5.3. Conditions for pedestrians on the Cowgate are particularly poor. The street is currently closed between 10pm and 5am to improve pedestrian safety. Furthermore, recent traffic management associated with construction work suggests that the centre could function effectively with the Cowgate closed.

5.4. Progress an Experimental Traffic Regulation Order (ETRO) to close the Cowgate and associated streets (e.g. Blair Street, Niddrie Street etc.), in 2024.

5.5. Develop a programme of implementation and an associated Operations Plan for option C in 2024.

Corridors

5.6. Review existing and forthcoming active travel and public transport projects (including Active Travel Investment Programme, Local Development Plan Action Programme and Bus Partnership Fund projects) and investment priorities across all corridors, attempting to combine separate projects and co-ordinate funding.

5.7. Develop the A8 corridor project as an integrated street upgrade from Roseburn to Gogar, incorporating a transformation of St Johns Road as a shopping street for people, better provision for people walking/wheeling, protected cycling infrastructure and measures to improve bus journey times and reliability.

Neighbourhoods

5.8. Develop and take forward a programme of Liveable Neighbourhood projects based on the approach outlined in 4.55 to 4.60.

6. Financial impact

6.1 If the recommendations in this report are to be delivered, significant additional resource and funding will be required. As part of this approach, officers will seek opportunities to maximise external funding (e.g. from Transport Scotland and

developer contributions). Officers will also revisit existing major capital investment allocations to ensure that they are aligned to priorities within this plan.

6.2 The targeted reduction of parking provision and extended hours of parking control impacts on future parking revenues. This will be modelled in detail and brought back to Committee.

7. Equality and Poverty Impact

7.1. The actions herein are anticipated to present significant opportunities and benefits to improve accessibility, modal choice, affordability and provide more equitable street-space allocations, reducing inequalities.

7.2. An Integrated Impact Assessment (IIA) has been completed, with mitigations to be taken forward.

8. Climate and Nature Emergency Implications

8.1. As a public body, the Council has statutory duties relating to climate emissions, air pollution and biodiversity and flood risk.

8.2. For climate change impacts, the Council must: *"in exercising its functions, act in the way best calculated to contribute to the delivery of emissions reduction targets"* according to The Climate Change (Emissions Reductions Targets) (Scotland) Act 2019 and "*act in the best way calculated to deliver any statutory adaptation programme*." This includes mandatory Public Bodies Climate change reporting.

8.3. Scenario testing with the Scottish Environmental Protection Agency's (SEPA's) carbon tool indicates that a 30% reduction in car kilometres would lead to a CO2 reduction of 19%. This analysis and climate change impacts are further detailed in the CMP 1st review report.

8.4. For biodiversity and nature impacts, the Council must *"in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions" according to* The Nature Conservation (Scotland) Act 2004. The Proposed Delivery Plan for Scotland's National Biodiversity Strategy states: "*every new transport and active travel infrastructure project should incorporate elements of blue-green infrastructure (and seek opportunities for enhancing/expanding blue green infrastructure) by 2030*".

8.5. The response to the Nature Emergency relating to 'Our Future Streets' is anticipated to be positive as 'place' design will ensure space for nature is made within the SAF as far as possible (for example, additional tree planting). The framework points designers to the need to adapt streets to climate change impacts and build resilience by using green-blue infrastructure. These needs are linked to strategic priorities for reducing and adapting to flooding/climate impacts.

9. Risk, policy, compliance, governance and community impact

ECCT

9.1. When ECCT was approved in 2019, the 10-year delivery plan highlighted that the cost of implementation would be £314m, bringing economic benefit of over £420m.

Prioritising future actions – you said, we did

9.2. Consultation with the public, communities and other stakeholders on how they would like to prioritise actions to deliver changes to our future streets, across the following themes which transect all three Our Future Street themes:

- Improving our public transport and active travel corridors;
- Delivering vibrant shopping streets;
- Delivering a people-friendly city centre;
- Improving local travel for walking and wheeling;
- Delivering liveable neighbourhoods;
- Delivering improvements to the public transport network;
- Delivering a joined-up cycle network;
- Achieving city-wide road safety targets; and
- Supporting the journey to net zero and cleaner air.

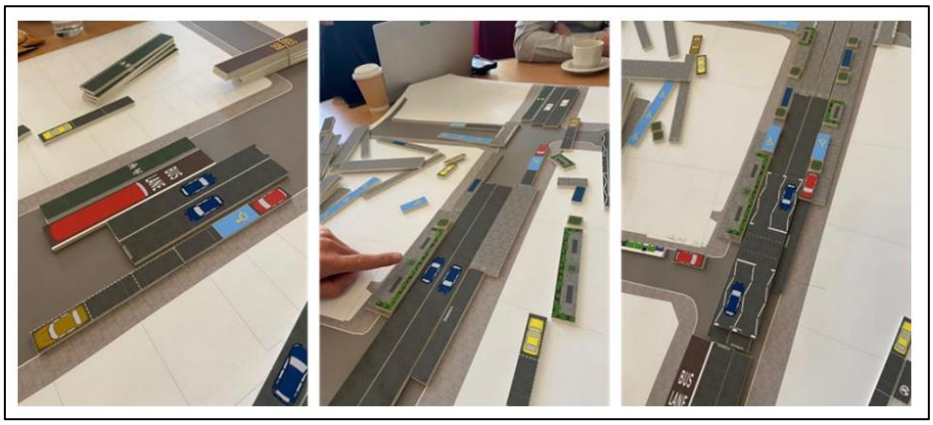
9.3. Feedback received has helped develop the Our Future Streets approach and informs early actions and investment programmes, as detailed in the CMP Implementation Plan and Actions.

Towards better consultation and engagement processes

9.4. Our Future Streets has been developed with the various perspectives and views conveyed through CMP consultation and engagement media (surveys, workshops) and during IIA workshops.

9.5. The CMP consultation 2023 introduced an interactive toolkit at stakeholder workshops; allowing users to create new and innovative street-space allocations, for various street typologies (high street, main road etc.) that reflected actual building-to-building widths in Edinburgh. Importantly, it presented a platform for open discussion on priorities and helped stakeholders reach acceptable compromises on place/modal priorities, could help engage stakeholders with the complexities of designing our future streets. It also potentially offers opportunities for stakeholders to meaningfully feed into future detailed design proposals. The image below illustrates Our Future Streets' toolkit being used by stakeholders during consultation.

9.6. This toolkit has potential for use in future projects to significantly alter streets, to illustrate the challenges, discuss design considerations openly and reach compromises across disparate user groups.



Impacts and risks

9.7. The IIA highlights the anticipated impacts and mitigations which will be continually considered as part of the next steps of this work.

10. Background reading/external references

Committee Papers

10.1. Circulation Plan: delivering the City Mobility Plan, Transport and Environment Committee – February 2023

10.2. Circulation Plan: delivering the City Mobility Plan, Transport and Environment Committee – December 2022

10.3. Our Future Streets: Edinburgh's approach to a circulation plan (Item 7.1), Transport and Environment Committee – October 2022

10.4. Actions to Deliver Edinburgh's City Mobility Plan - Consultation Update, Transport and Environment Committee – October 2023

10.5. Low Emission Zone – Carbon Impact, Transport and Environment Committee – January 2022

10.6. City Mobility Plan, Transport and Environment Committee - February 2021

10.7. Edinburgh as a Feminist City, Planning Committee – November 2023

10.8. Draft Climate Ready Edinburgh Plan 2024-2030 for consultation, Policy and Sustainability Committee – December 2023

Background – the Council

10.9. City Vision 2050 webpage (The City of Edinburgh Council, February 2023)

10.10. Future Edinburgh webpage (The City of Edinburgh Council, February 2023)

10.11. City Plan 2030 (The City of Edinburgh Council, September, 2021)

10.12. 20 Minute Neighbourhood Strategy (The City of Edinburgh Council, August 2023)

10.13. Edinburgh Street Design Guidance (The City of Edinburgh Council, February 2024)

10.14. Sustainable Rainwater Management Guidance (The City of Edinburgh Council, February 2024)

Background – Edinburgh/Scotland evidence

10.15. Road space reallocation in Scotland: A health impact assessment (Journal of Transport and Health, 2023)

10.16. Just transition for the transport sector: a discussion paper (Scottish Government, June 2023

Background – cities best practice

10.17. Future Connect – Auckland Transport's Network Plan (Auckland Transport, 2023)

10.18. Multimodal Optimisation of Roadspace in Europe (MORE) (University College London, 2017-22)

10.19. Evaluation of Ghent's Circulation Plan [DUTCH] (Transport and Mobility Leuven, 2019)

10.20. 'Plusnet': Amsterdam's Plus Networks and Main Networks Infrastructure Map (City of Amsterdam, 2022)

10.21. Spaced Out: Developing a Streetspace Allocation Framework for Glasgow (Glasgow City Council, Jacobs 2022)

10.22. Street Shift: The Future of Low-Traffic Neighbourhoods (Centre for London, June 2022)

10.23. The Copenhagen Metropolitan 'Finger Plan': A Robust Urban Planning Success Based on Collaborative Governance (Sørensen, Torfing, 2019)

11. Appendices

Appendix 1 Our Future Streets – technical report

Appendix 2 Corridor 'design intent' example

Appendix 3 Our Future Streets - Integrated Network Map city and city centre

The City of Edinburgh Council

Our Future Streets (Circulation Plan) Technical Summary Report

January 2024

Client name: The City of Edinburgh Council

Project name: Our Future Streets (Circulation Plan)

Project no: BESP0023

Document no: 001

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Document History and Status

Version	Date	Description
001	20/11/23	First draft
002	15/12/23	Second draft
003	19/01/23	Third draft
004	23/01/23	For Committee (maps to be finalised)
005	24/01/23	For Committee
006	25/01/23	For Committee (front cover updated)

Contents

Appendices

1 Introduction

1.1 What is 'Our Future Streets'?

Our Future Streets (circulation plan) is a strategic approach to allocating space on different sections of Edinburgh's streets and wider transport network to ensure the balance of space between place functions and different modes of travel reflects the city's committed policy outcomes. The City of Edinburgh Council (the Council) has set out ambitious plans for the city in terms of placemaking, active travel and public transport in the context of a changing climate. On many parts of the network these plans will be competing for the same space, which in turn may limit the full benefits of these sustainable modes from being realised.

Our Future Streets provides a robust, rational, consistent, and transparent decision-making process for Council teams and stakeholders to re-allocate street space to achieve acceptable outcomes. This helps the Council to achieve the overarching aims of its local transport strategy - the City Mobility Plan (CMP) and its Climate Ready Edinburgh Plan - and enhance the city's streets and places for everyone who uses them. In doing so, it sets out an agreed method for the medium- and long-term planning of the transport network, by outlining modal and place priorities strategically for transport corridors, the city centre, and neighbourhoods, to inform priorities for investment. It also assesses alternative options for the city centre and recommends priorities for investment.

This Technical Summary Report sets out the approach and analysis that has been applied to develop this decision-making process and the technical appraisal that has informed the development of alternative city centre options and corridor investment priorities.

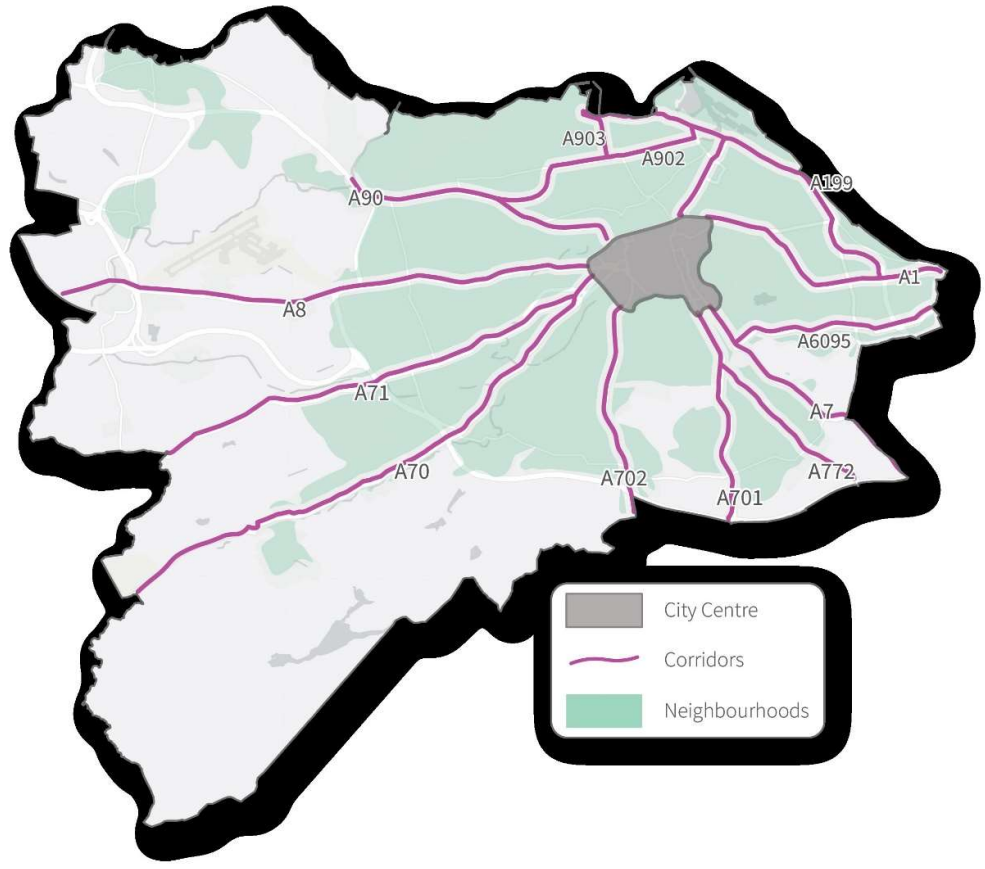

Figure 1.1 – Scope of Our Future Streets

Currently, some strategic decisions are made at a project-specific level. Our Future Streets will help ensure that strategic decisions are taken at network levels, leaving individual projects to focus on design and delivery. An overview of this process is set out in Figure 1.2.

The outputs of Our Future Streets will provide:

- Interactive mapping, showing the intended allocation of space across the city's transport network and desired future networks for place and each mode
- Space Allocation Intents for each key corridor in the city, which can be used to inform future design briefs
- An assessment of alternative options for the city centre within this context, building on earlier work for Edinburgh's City Centre Transformation (ECCT) Strategy
- Recommendations on the priorities for investment over the short-medium term

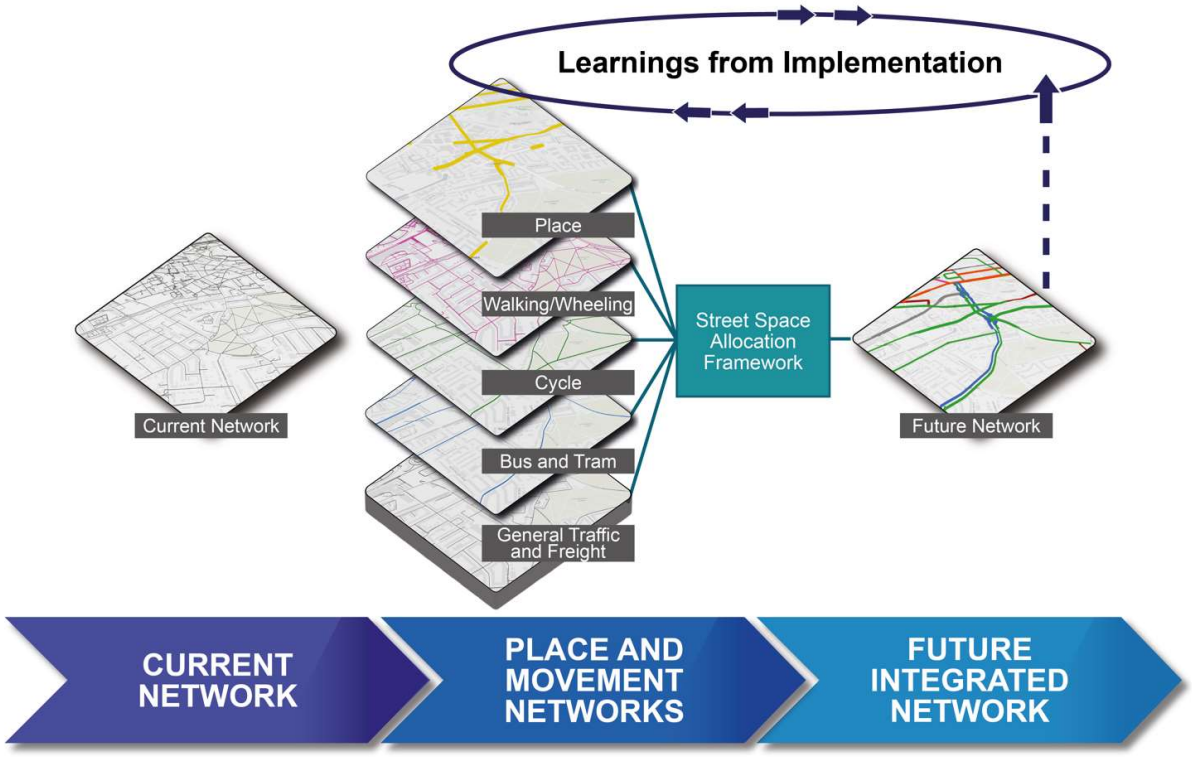

Figure 1.2 – Summary of Network Review Process Undertaken by Our Future Streets (Circulation Plan)

1.2 Why Does Edinburgh Need This?

The City Mobility Plan (CMP) sets a clear direction for the transport priorities across the city from 2021-2030, including a commitment to work towards a net zero carbon city by 2030. An important part of the route to net zero is the target to reduce car kilometres by 30% by 2030.

Achieving this via shorter journeys, better public transport for all and more journeys on foot and bike would bring many benefits over and above reduced greenhouse gas emissions. Less traffic results in reduced air pollution with associated health, economic and quality of life benefits. It enables the reallocation of street space, providing more footway and public space, enhancing the quality of streets and the wider urban realm and preparing Edinburgh for our future climate.

Our Future Streets has a big part to play in moving towards this lower traffic, more liveable and more sustainable city. The City Mobility Plan's Policy Movement 25 sets the requirement to *"develop and deliver a strategic approach to allocating street space between modes of travel to define the degree of priority to be given to different modes on different streets."*

The reallocation of space on the city's streets is therefore fully aligned to the city's wider policy aims and will be a critical component of making sustainable travel more attractive in relation to private car travel, and in turn working towards the city's 30% car kilometre reduction target.

In doing so, Our Future Streets will establish a consistent and robust approach to the allocation of space across the network to allow a more efficient and co-ordinated design process. At the same time, it will contribute to the city's wider policy objectives, which include improved outcomes for health and the environment, increasing physical activity and reducing the air quality and carbon emission impacts associated with vehicle traffic.

1.3 Overall Approach

Our Future Streets has been developed to ensure that the future transport network takes account of the specific needs of the city centre, neighbourhoods and the corridors that connect them, and that each of these components work collectively to achieve the CMP objectives and can be adaptable to future changes and new priorities.

The key aims of Our Future Streets are firstly set out in Chapter 2, which are aligned to CMP policy outcomes. These aims set the foundation for a set of principles in Chapter 3 that guide the Streetspace Allocation Framework (SAF) at a city network level, to robust decision making linking back to wider policy intentions. Within the context of the SAF, additional analysis is presented for city centre development options, corridor investment priorities, and neighbourhoods.

As such, the development of Our Future Streets has been developed through the following inter-related tasks, which are described in the following chapters of the report.

- Chapter 2: Policy and Principles – describes the policy context for Our Future Streets and the principles that underpin it
- Chapter 3: Streetspace Allocation Framework (SAF) – sets out how potential conflicts for space have been identified and resolved across the full network
- Chapter 4: Corridor Investment Priorities – sets out the need to prioritise investment in the coming years, and how priority corridors have been identified
- Chapter 5: City Centre – describes alternative options for enhancing the desired ECCT outcomes for the city centre, and an appraisal of these options
- Chapter 6: Neighbourhoods – summary of how Our Future Streets will support the delivery of Liveable Neighbourhood proposals
- Chapter 7: Next steps – summary of recommendations and actions to be taken forward following February 2024 Transport and Environment Committee meeting

2 Policy and Aims

2.1 Policy Context

The development of Our Future Streets is fully aligned to the policy objectives set by Edinburgh's local transport strategy from 2021-2030 (the City Mobility Plan) and its associated Edinburgh City Centre Transformation strategy. These strategic plans set the direction for transport and placemaking investment priorities in the coming years, seeking to contribute to wider policy outcomes on climate, health, wellbeing, and economy.

2.1.1 Policy Specifically Relevant to 'Our Future Streets'

Local

The **City Mobility Plan (CMP) (2021 – 2030)** provides a framework for safe and effective movement of people and goods around Edinburgh up to 2030. It focuses on mobility's role in maintaining Edinburgh as a vibrant, attractive city while addressing the environmental and health impacts associated with how we move around. The objectives of the plan include:

- People Objectives - to improve health, wellbeing, equality and inclusion
- Place Objectives - to protect and enhance our environment and respond to climate change
- Movement Objectives - to support inclusive and sustainable economic growth, and specifically including a policy on the development of a strategic approach to allocating streetspace

The basis for Our Future Streets is contained in CMP Policy Movement 25, which sets the requirement to *"develop and deliver a strategic approach to allocating street space between modes of travel to define the degree of priority to be given to different modes on different streets".* This allows the Streetspace Allocation Framework of Our Future Streets to create a more detailed spatial definition of the intended outcomes of CMP, balancing the needs of the different transport and place policy priorities of the strategic CMP document.

Edinburgh City Centre Transformation (ECCT) (2019-2030) is an ambitious plan for a vibrant and people focused capital city centre which seeks to improve community, economic and cultural life. The vision is for *'An exceptional city centre that is for all, a place for people to live, work, visit and play. A Place that is for the future, enriched by the legacy of the past'*. ECCT seeks to deliver a walkable city centre with a pedestrian priority zone and high-quality streets and public spaces over a 10-year period, whilst retaining access and appropriate levels of parking and loading for city centre residents and businesses. The key principles which underpin this ECCT vision are:

- People First – giving priority to those walking, wheeling, cycling and using public transport
- Inclusive and accessible – in the design and management of city centre streets
- Enhanced open spaces – better linking green spaces, open spaces and street networks
- Unique character and identity – celebrating and enhancing the unique built and natural environment
- Liveable – enhancing local centres for those living in the city centre
- Integrated policies and projects – creating a co-ordinated approach to city centre planning and management

At city centre level, Our Future Streets will examine options to build on the ECCT proposals, within the context of current policy and the wider city network. In doing so, it will remain fully aligned to the ECCT vision and principles set out above and assess how these can be met through different spatial options for the city centre.

Edinburgh's **20 Minute Neighbourhood Strategy (2021-2030)** sets out an approach to provide inclusive places where everyone has better access to local services, facilities, open spaces, and sustainable travel links to the rest of the city. Development and delivery of the improvements needed to meet these aims will be undertaken collaboratively with local communities to ensure that each neighbourhood is considered individually to meet local needs.

National

The second **Strategic Transport Projects Review (STPR2) (2022-2042)** will inform transport investment in Scotland for the next 20 years. STPR2 is a Scotland-wide review of the strategic transport network across all transport modes, including walking, wheeling, cycling, bus, rail, and car. STPR2 will help to deliver the vision, priorities, and outcomes of the second National Transport Strategy (NTS2). For Edinburgh, the key intended outcomes of STPR2 are well aligned to the aims and principles of Our Future Streets, including improved accessibility, sustainable connectivity and enabling economic growth. Of particular importance is Recommendation 12 (Edinburgh and South East Scotland Mass Transit) which sets out strategic plans for the further expansion of the city region's mass transit system, which will require careful consideration for the allocation of street space.

2.1.2 Wider Context

By aligning to these specific strategies, Our Future Streets will in turn be fully aligned with the policy direction at local, regional, and national level, including:

Local

- The **2030 Climate Strategy (2021-2030)** which outlines how to deliver a net zero, climate ready city by 2030 as well as a healthier, thriving, and inclusive capital for people to live and work in. The strategy sets the Council's role to show leadership in delivering high-quality, low carbon infrastructure, which is directly pertinent to the layouts and operation of the city's network of streets
- **Edinburgh's City Vision 2050** was established in 2016 and engaged with thousands of city residents to shape the future direction for the city. Focused around the four key principles of a Fair, Pioneering, Welcoming and Thriving city, the 2050 Vision provides a unifying direction for all public policies and strategies to follow
- **Edinburgh's Water Management Vision 2020** sets out objectives and proposals for projects that will help adapt the city to the risks associated with all types of flooding resulting from the changes to the climate and the predicted future changes
- The Local Development Plan and **Edinburgh City Plan 2030** set out policies and proposals for development in Edinburgh to 2030. It plans for the housing and other developments that the city is anticipated to need, whilst supporting inclusive, sustainable growth and improving the attractiveness of Edinburgh as a place
- The **Draft Climate Ready Edinburgh Plan (2024-2030)** sets out what is needed for the city to meet the target of being net zero on carbon by 2030, and related goals driven by the council's declaration of climate and nature emergencies. It reaffirms the case for adaptation to a changing climate, and provides an action plan for meeting the council's ambitious 2030 target
- The **End Poverty in Edinburgh Delivery Plan (2020-2030)** sets out an action plan to tackle the causes of poverty across the city, identifying six areas for action: fair work, a decent home, income security, opportunities to progress, connections and belonging, health and wellbeing and one cultural challenge serving as a lens through which each action should be approached
- **Edinburgh's Green Blue Network Strategy** collated all environmental, planning and social information to create an integrated strategic green blue network for the city. This included information on all types of flooding and is highlighted as a National Project in NPF4 (blue green Infrastructure). It also identified and embedded a Local Nature Network and the slow cycle network. Priority areas for action were identified and are being progressed.
- Edinburgh's draft World Heritage Site Management Plan (2024-2035) provides an updated framework for the preservation and enhancement of the city centre's cultural heritage as a requirement for UNESCO. It contains a vision, sets out objectives and delivery mechanisms for its achievement. The Council continues to work with key partners at Historic Environment Scotland and Edinburgh World Heritage Trust to develop and deliver the Plan
- The appointment of a Working Group in 2023 for **Edinburgh as a Feminist City** will ensure that Edinburgh can deliver gender equality through its design and culture fostering the creation of safe and inclusive spaces for women and people of marginalised genders

- The appointment of an **Edinburgh Accessibility Commission** in 2024 to make sure Edinburgh's public spaces are as inclusive as possible for disabled people

National and Regional

- The **National Transport Strategy 2 (NTS2) (2020-2040)** sets out a vision for Scotland's transport system for the next 20 years to protect the climate and improve lives through a sustainable, inclusive, and accessible transport system. The vision of NTS2 is that Scotland *'will have a sustainable, inclusive, safe and accessible transport system, helping deliver a fairer and more prosperous Scotland for communities, visitors and businesses'*. This is underpinned by four outcomes, all of which Our Future Streets will directly contribute to at a local level:
  - Reduces Inequalities
  - Takes Climate Action
  - Helps Deliver Inclusive Economic Growth
  - Improves our Safety and Wellbeing
- The **National Planning Framework 4 (NPF4) (2023-2045)** is Scotland's long-term development strategy, the spatial expression of the Scottish Government's economic strategy and of the government's plan for infrastructure investment. Key themes relate to economic growth, promoting social inclusion, protecting the environment and improving health, improving the safety of journeys, and improved transport integration.
- **Scotland's Climate Change Plan (2018-2032)** sets out the Scottish Government's pathway to our new and ambitious targets set by the Climate Change Act 2019, setting a strong platform and aligning to Edinburgh's own Climate Ready Plan.
- The **SEStran 2035 Regional Transport Strategy** (RTS) was published in 2023, setting a vision for a fully integrated transport system that contributes to wider accessibility, environmental and economic outcomes. Again, each of the objectives set by the RTS are well aligned with the intentions of Our Future Streets: a sustainable transport system, healthier travel options, transforming public transport access, and the safe and sustainable movement of people and goods.
- Ongoing delivery programmes including the Active Travel Investment Plan, 20mph programme and ongoing roads and footway maintenance and improvement programme

2.2 Stakeholder and Public Appetite for Change

The Council ran a consultation and engagement process on the 'Actions to Deliver Edinburgh's City Mobility Plan', which ran for 12 weeks from 17 April until 9 July 2023. The programme was developed in collaboration with the Council's Consultation Advisory Panel alongside inputs from the Transport and Environment Committee and other key stakeholders. It sought feedback on the emerging actions being developed to implement the CMP including Our Future Streets.

Overall, the consultation provided a guiding steer on the biggest priorities for the city across a range of themes and captured views on the compromises and difficult decisions required to deliver measures within the constraints of limited street space. It also reinforced the requirement to consider those with specific needs such as people with disabilities and small businesses when making changes to streets, spaces, and priorities.

In addition to the online survey for residents, market research was undertaken which took a representative sample of users in Edinburgh. While the online survey generally indicated marginal support for most of the actions highlighted, the market research revealed a relatively strong level of support across the suite of actions. The market research figures are considered more representative of the population than the online survey responses, due to the nature of gathering responses in a more controlled environment that improves statistical significance through representative sampling of the population.

The key points emerging from the consultation relevant to the development of Our Future Streets include:

- Strong support (up to 79% from online survey and up to 81% from market research) for measures to improve walking, wheeling and placemaking, including improved footways, pavement car parking ban and more rest places

- Support (51% from online survey and 61% from market research) for the proposed expansion of the city cycle network, with a greater focus of this support from younger age groups
- Strong support (up to70% from online survey and up to 73% from market research) for improvements to bus stops and real-time information
- Support (up to 47% from online survey and up to 60% from market research) for additional bus priority measures, including extended bus lanes and signal priority at traffic signals
- From under-represented and seldom heard groups: restrictions to traffic need to come alongside provisions for disabled drivers and accessibility improvements to the city centre by public transport
- Strong support (56% from online survey and 74% from market research) for taking action to protect vulnerable road users at major junctions which may impact motorised traffic
- Support (47% from online survey and 64% from market research) for examining further restrictions to traffic through the city centre, with the Bridges corridor, Cowgate and Lothian Road all identified as strong candidates for this
- Support (52% from online survey and 65% from market research) for the removal of on-street car parking on key shopping streets
- An interactive street design toolkit was used during in-person stakeholder workshops, allowing participants to clearly visualise and navigate the trade-offs involved in all such design processes. The workshops typically resulted in a high level of consensus among participants around allocating street space to favour placemaking, public transport and active travel

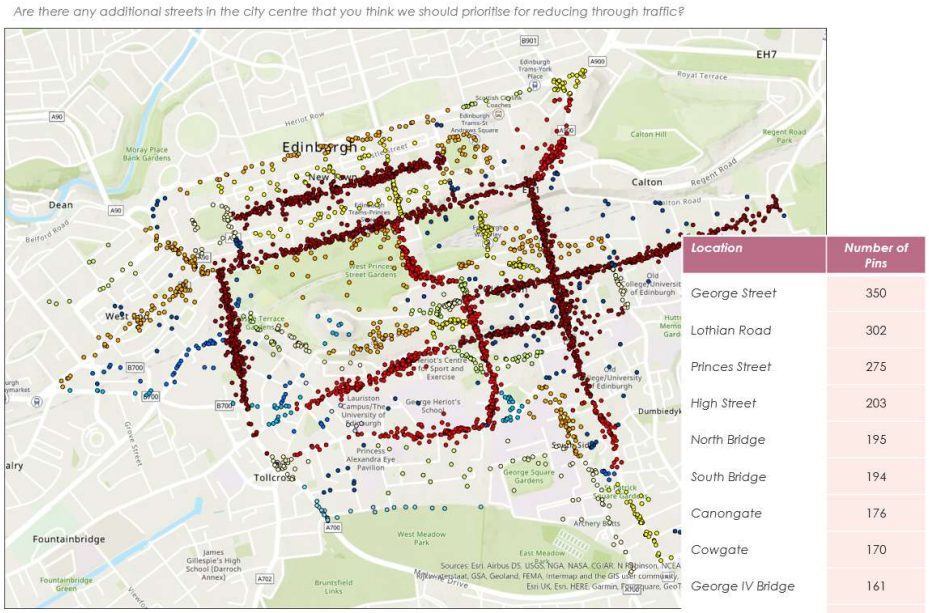

Figure 2.1 – Heatmap of Survey Respondents' Suggested Traffic Restrictions from 2023 CMP Consultation

Figure 2.1 above indicates the areas of the city centre where those responding to the survey suggested that the reduction of through traffic should be prioritised, to facilitate improvements to placemaking and sustainable travel. Respondents highlighted key streets previously identified by ECCT for such measures (George Street, The Mound, Lothian Road, High Street and Canongate), as well as additional streets including North Bridge, South Bridge, Cowgate and Lauriston Place.

The potential to establish measures on these additional streets has been examined through the development of Our Future Streets, with options and recommendations set out in Chapter 5 of this report.

2.3 Aims of Our Future Streets

The principles that have underpinned the development of Our Future Streets were reported and agreed at the December 2022 Transport and Environment Committee. These principles, which aim to balance competing demands for space, have been developed further to guide the allocation of space across the network and to inform how decisions should be taken where trade-offs are needed between competing priorities. In summary, the principles aim to:

- Enable safe, accessible travel around Edinburgh for everyone, at all times
- Embed streets' roles in helping the city adapt to a changing climate (sustainable drainage, tree planting, greening)
- Put placemaking, walking and wheeling at the heart of street design, especially in high streets and other locations with the highest levels of pedestrian activity
- Create a well-connected citywide cycle network, protected from busy traffic
- Reduce bus journey times and improve journey time reliability
- Help to deliver an effective and reliable tram system
- Enable necessary vehicular access to businesses and residences for deliveries, and maintain suitable car parking for all residents. However, recognise that on-street loading and especially car parking may need to be relocated from key streets in favour of placemaking or provision for public transport, walking, wheeling and/or cycling
- Ensure a clear and connected network of routes for general motorised traffic
- Enable the delivery of other key public services that require street space, notably waste collection

The principles and the trade-off process are set out in detail in Chapter 3 of this report.

2.4 Lessons Learned from Other Cities

Edinburgh is not the only city to be considering and implementing a strategic approach to allocating space across the city transport network. The benefits of doing this (to allow strategic decision making to be taken at a strategic level, rather than waiting for a project-specific decision) has been recognised by other cities across the UK, Europe and further afield, with strategies applied in different ways to achieve these benefits for each local context. Some examples of this are provided below:

- Amsterdam, Netherlands – the 'Plusnet' model has guided Amsterdam's approach to multi-modal network planning at a strategic level, by identifying 'Plus' (primary), 'Main' (secondary) and 'Local' networks for each mode. Where conflicts for space occur and where networks cross each other at junctions, decisions on the priority given in both space and time for each mode is then governed by the relative importance of the route as part of this 'Plusnet' hierarchy. This approach ensures that routes designed to transport the greatest number of people on each modal network are given priority where needed. Importantly, the Amsterdam network does not have a high-capacity inner orbital corridor (as other examples below do), meaning that fewer options are available for the 'sectoring' of the city.

- Ghent, Belgium – the Circulation Plan was implemented in 2017 and involves the division of the city centre and inner city into distinct areas, between which private cars cannot travel directly. The presence of both an inner and outer orbital corridor in the historic urban planning of the city facilitates this approach, by requiring vehicles to use these orbital links to connect between areas of the city rather than directly via side streets. This frees space and capacity on these local connecting streets for those walking, wheeling, cycling, and using public transport within and between sectors of the inner city. The Circulation Plan was implemented in 'one-go' in 2017, resulting in significantly lower traffic levels in the city and positive shifts towards sustainable modes.

- Birmingham, England/UK – inspired by the Ghent model, Birmingham set out a similar plan in 2020 to create sectors within the inner city, framed by the circular A4540 Middleway. Each sector would be accessed from this road and from the strategic radial routes connecting Birmingham to the surrounding motorway network. Travel between the sectors directly would be restricted to active and public transport movements in a similar fashion to Ghent. Implementation of the strategy is likely to

have similar challenges to Edinburgh, so the opportunity to learn from Birmingham as it progresses this implementation should be monitored.

- Glasgow, Scotland/UK – taking a slightly different approach, in 2022, Glasgow set out its plan for a Streetspace Allocation Framework (SAF) to guide strategic decision making. Not a circulation plan in the sense that no 'sectoring' of the city is proposed, the SAF is instead a recognition of the competition for space between various transport projects and the need to resolve these conflicts at a network level rather than a project-specific level as has happened in the past, risking a fragmented network for each mode. The main difference between Glasgow's approach and Edinburgh's is that Glasgow's SAF is being used to *inform* its emerging city transport strategy, whereas Edinburgh's equivalent is being developed to *deliver* its CMP. Nevertheless, there are several similarities between the two cities' approaches that have allowed collaboration and learning between them, which is aimed to continue as each SAF is implemented.

- Auckland, New Zealand – Auckland Transport have developed a framework like Amsterdam's called 'Future Connect'. This presents desired future networks at various tiers, for public transport, general traffic, freight, cycling and micromobility and walking. It was first published in 2021, covering the period 2021-2031. Networks were updated in 2023, covering the period 2024 – 2034. Auckland's approach highlights a need for updates to future desired networks for long term planning and to reflect the ever-evolving nature of the city's requirements.

3 Streetscape Allocation Framework (SAF)

3.1 Our Approach to Allocating Streetspace

The purpose of the Streetspace Allocation Framework (SAF) is to establish how space will be allocated on each part of the network, to optimise the level of service for sustainable transport modes, placemaking functions and to deliver a clear and coherent general traffic network.

As reported to the December 2022 Transport and Environment Committee, this requires an objective and transparent decision-making process that is applied consistently across the Council's network of streets located within the local authority boundary, using the following four steps:

1. Production of individual network maps, to establish desired place and movement priorities (prior to conflict identification and resolution)
2. Identification of conflicts where these desired priorities cannot all be accommodated
3. Use of strategic decision framework to resolve conflicts, either through further design or relocation of some modal priorities
4. Production of integrated mapping

In developing the Edinburgh SAF, the approaches of other cities that have sought to take a similarly strategic approach to streetspace allocation, for example Amsterdam and Auckland, have been carefully considered (see section 2.4). At the same time, it has been important to also consider Edinburgh's unique characteristics. This has resulted in a method, the SAF, that is tailored to Edinburgh.

3.2 Future Land Use Planning

The approach to Edinburgh's SAF accounts for future land use changes in two ways:

- Changes in future travel demand (that are expected from the significant land use changes set out in the City Plan 2030) are accounted for in the desired future transport networks for each mode. This means that transport networks needed to provide connectivity to significant planned trip generators and development sites will act as an input to the SAF process as part of the wider transport network proposed for each mode
- Any changes in available space resulting from future development plans are identified and checked as part of the conflict identification process, which can be updated and reviewed as future development plans are further developed and refined.

The intention is that the SAF will be a dynamic tool that can be updated and applied by the Council in future. Although a set of initial outputs are presented in this report from the current network inputs, it is expected that the SAF process will be revisited and the outputs updated in future in the context of further relevant information, for example travel demand or space constraints of future development sites.

3.3 Initial Place and Movement Networks

The first step of the process was to establish the initial network for each mode of transport, and to define the level of service (LOS) desired for each part of its network. Place is included as a 'network' so that it is always considered as a function of street space and links to urban planning decisions locally and strategically.

These individual modal networks were developed in draft form in 2022 by the Placemaking and Mobility Strategy team and shared with the Transport and Environment Committee in December 2022. These are presented below. For place, walking, cycling, bus, and tram, they represent long-term aspirations for the development of these networks in the city, to meet the aims and objectives of the City Mobility Plan. For general traffic (including freight and deliveries) the network represents the status-quo of the present i.e. early 2024.

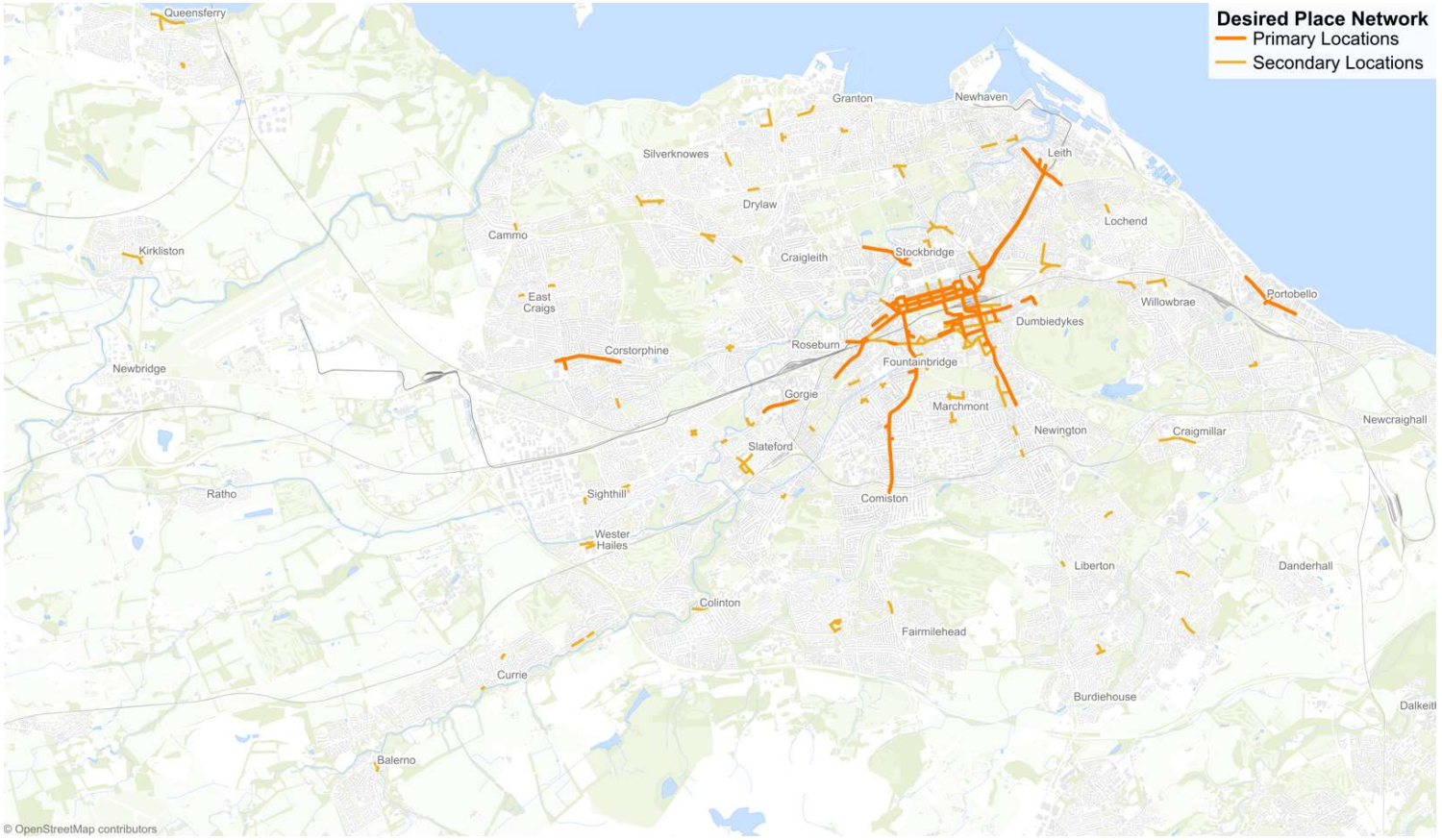

Figure 3.1 – Desired Place Network

The place function of streets should always be a consideration in the design process of projects. Over and above sections of street mapped in the SAF as having a primary or secondary place function, extra consideration should always be given to the place function in specific locations, including at the entry or exit point to buildings, parks, etc, which attract significant numbers of people who may be expected to gather. (e.g. at the entrances to major parks and gardens, theatres, large churches/ cathedrals, cinemas, etc)

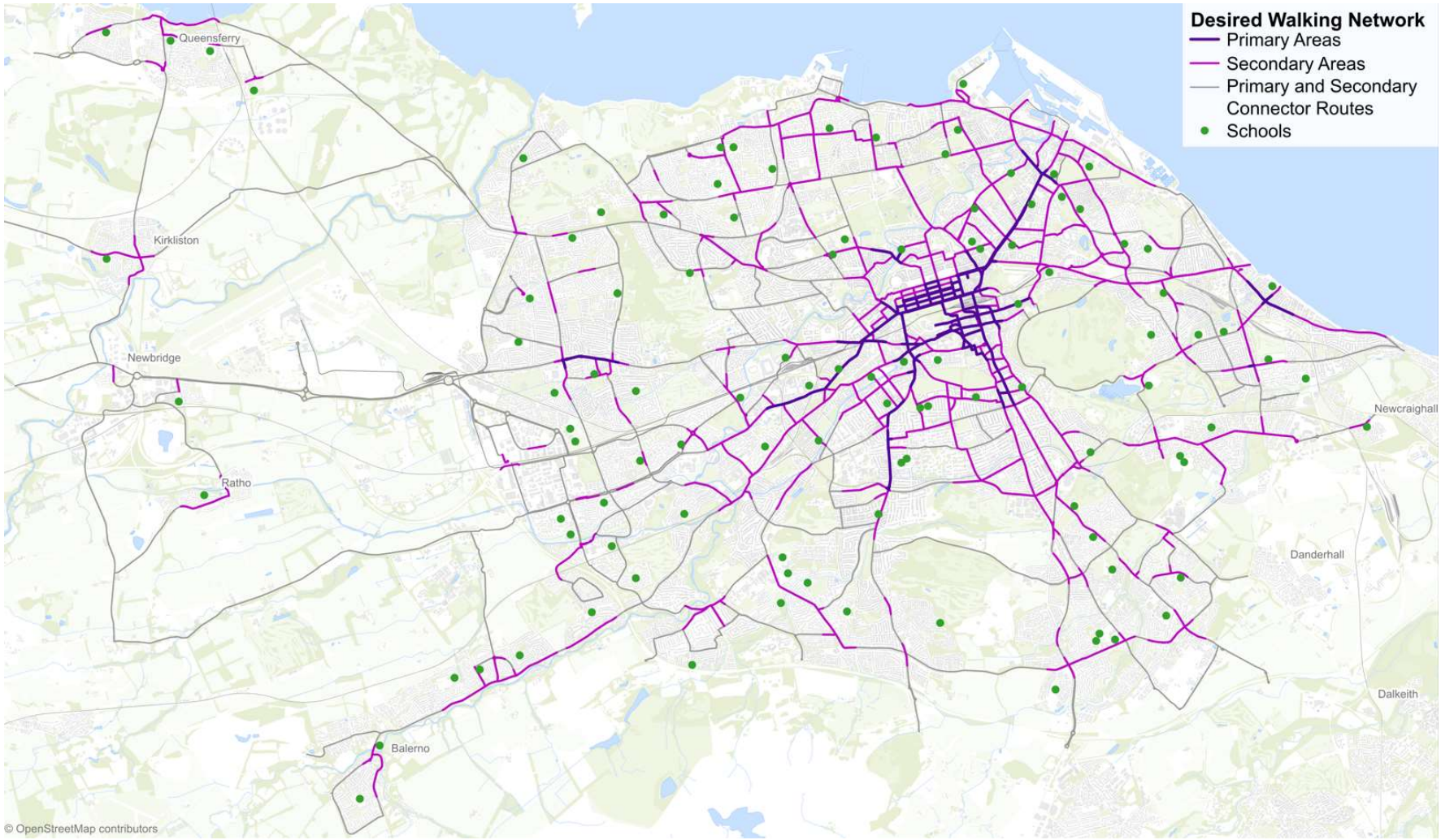

Figure 3.2 – Desired Walking and Wheeling Network

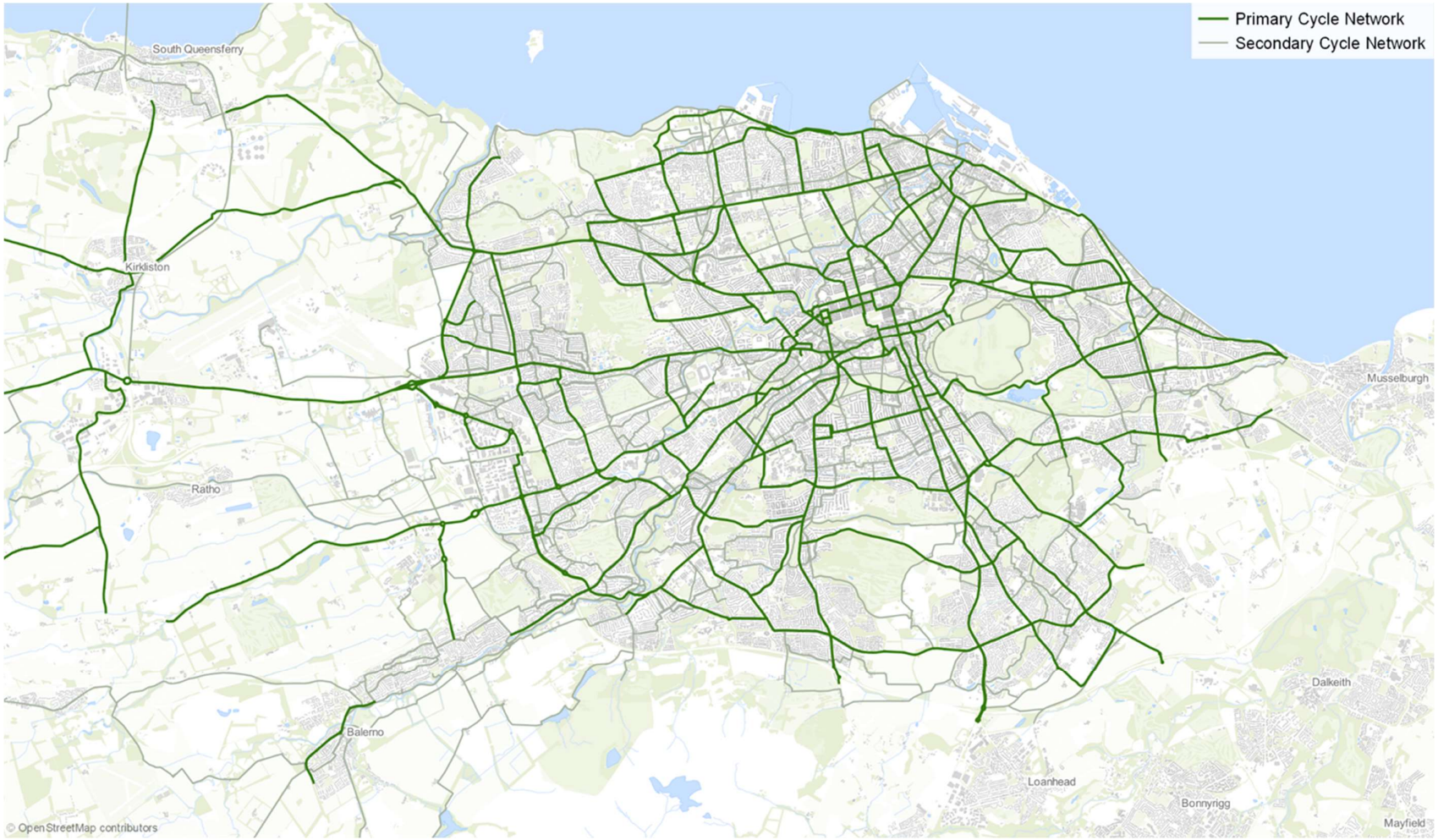

Figure 3.3 – Desired Cycle Network

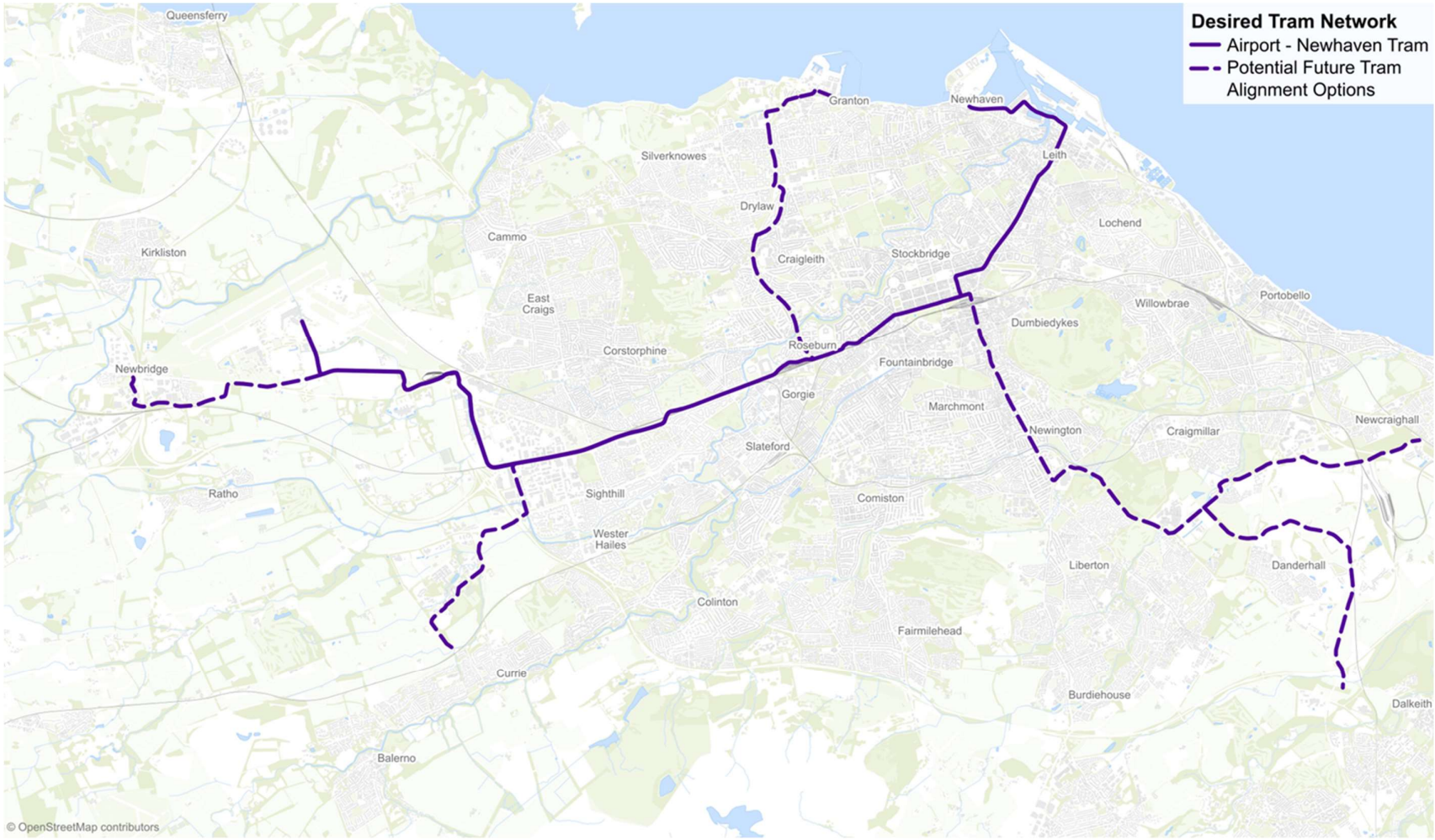

Figure 3.4(a) – Desired Tram Networks

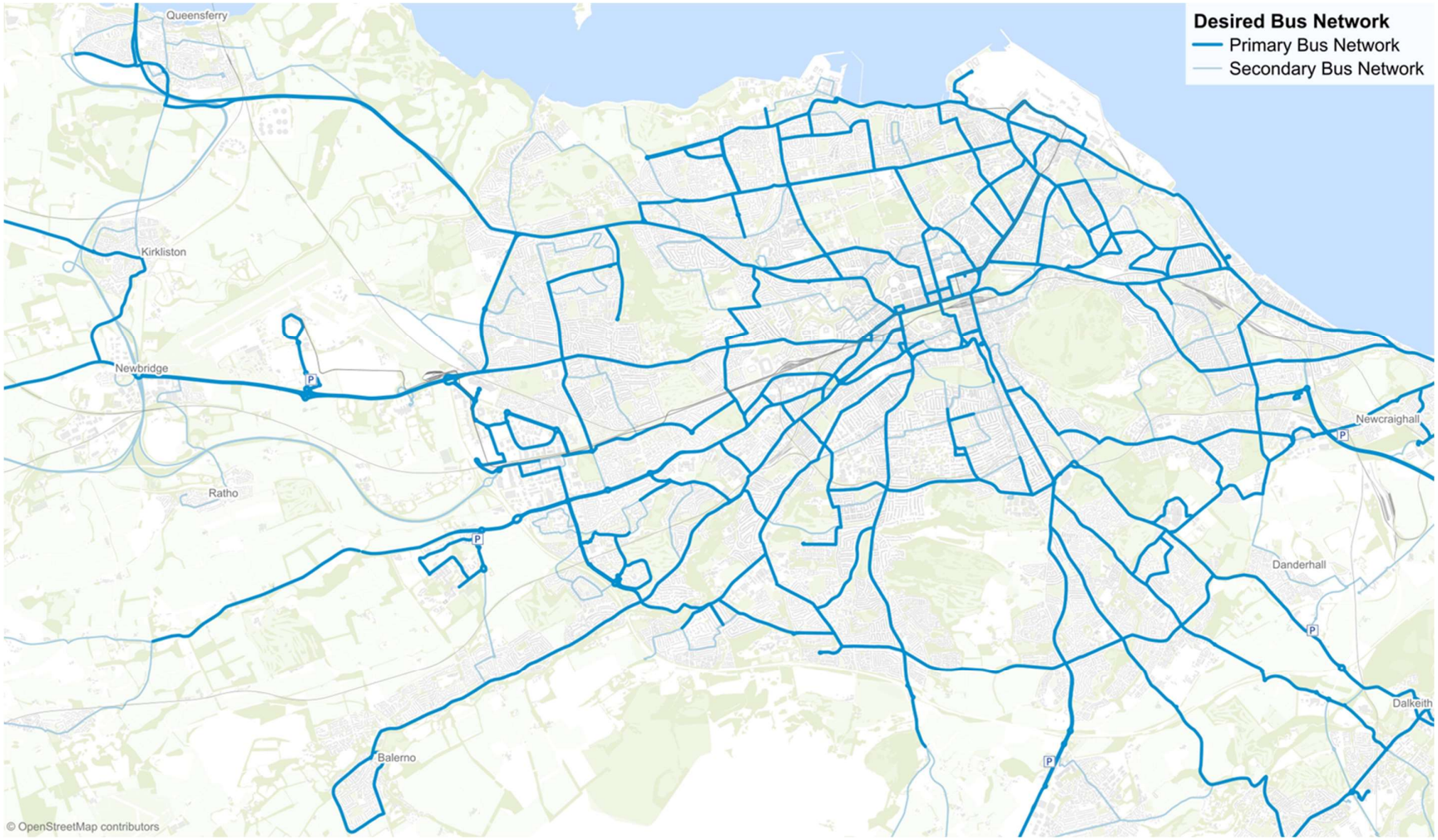

Figure 3.4(b) – Desired Bus Network

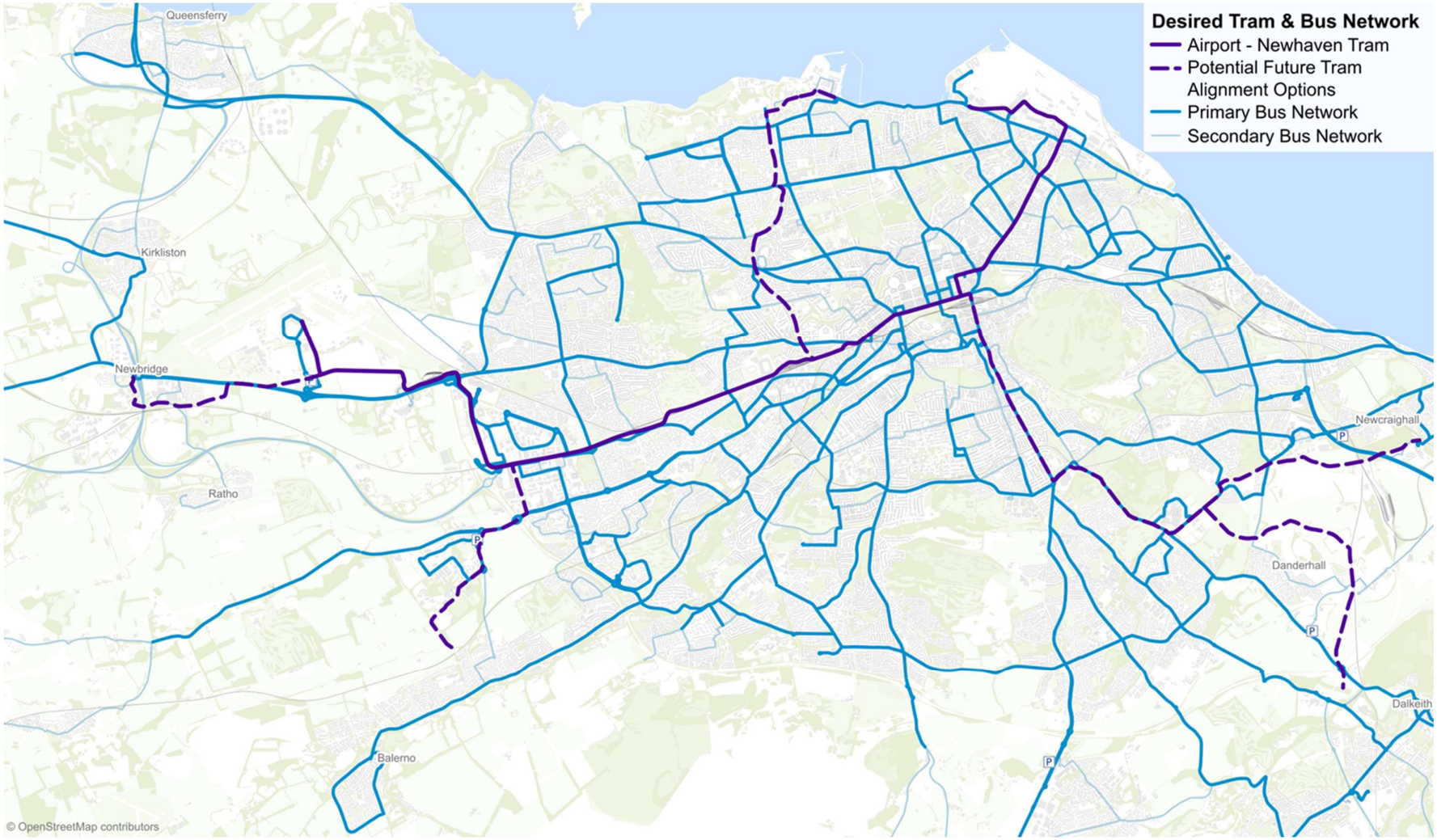

Figure 3.4(c) – Desired Tram + Bus Networks

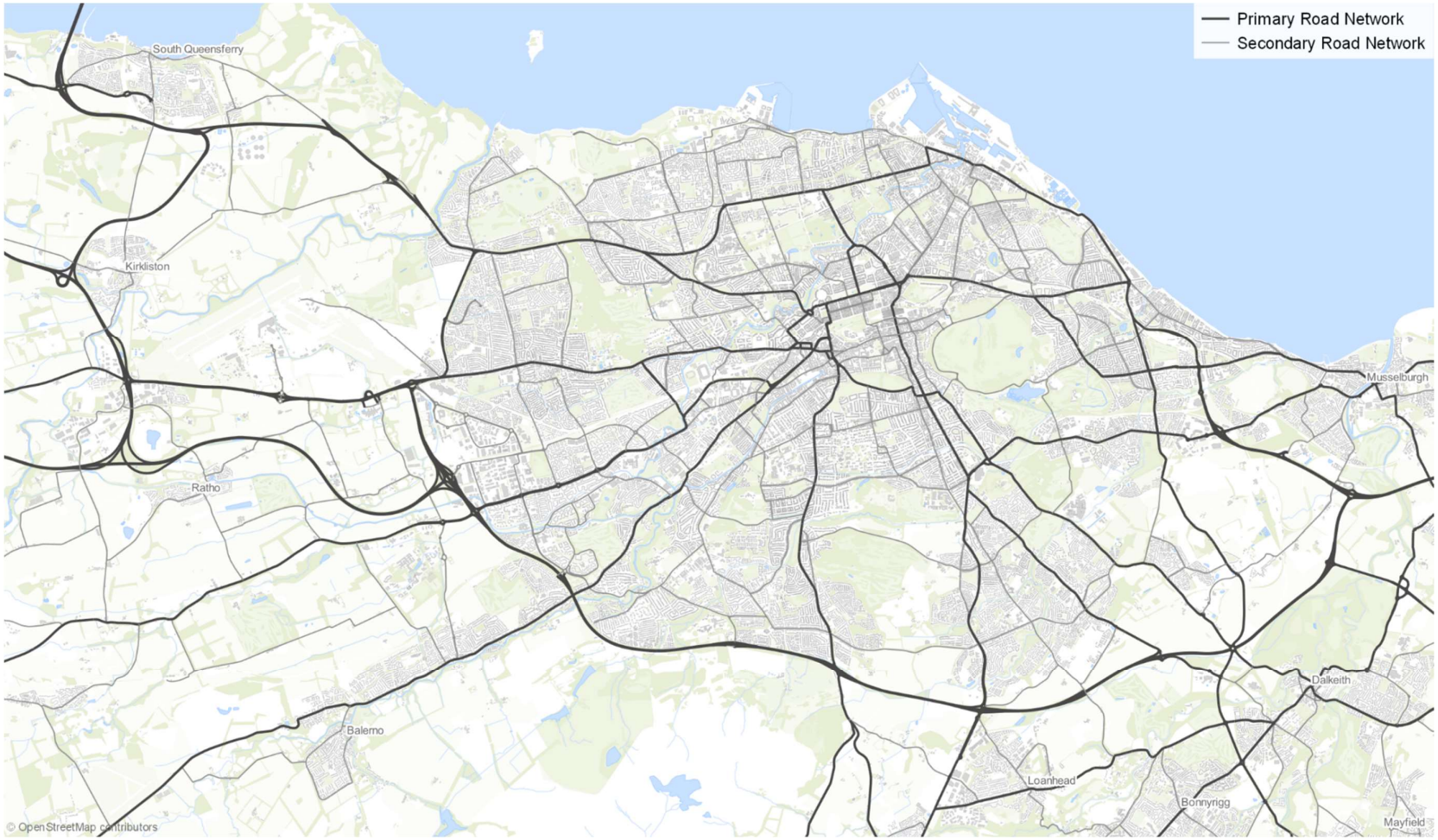

Figure 3.5 – Initial General Traffic Network

These networks act as the 'inputs' to the SAF process. To ensure that any resulting conflicts can be assessed in a transparent way, each modal network comprises primary, secondary, and local components, with an associated level of service for the users of each part of the network. This allows the potential impact of different transport users to be examined in a consistent way across each mode, and for those using the SAF to understand the impact of different trade-off decisions for the end users of the network.

The widths identified below are broadly aligned with Edinburgh Street Design Guidance (ESDG) desirable dimensions and were applied in the identification of conflicts as part of the SAF process. These therefore allow streets to be designed to be fully maintainable and accessible by emergency vehicles, even where general traffic may be restricted.

Table 3.1 – Levels of Service

Place	Level of Service	Example Locations	Width Applied	Target Width for Design	Note
Primary locations	Highest LOS: in accordance with overall aims, opportunities should be provided for seating, planting, dwelling and other non-movement functions, such as bins	Key shopping / high streets	2.5m (per side)	1m to 2.5m (per footway)	See general note 2. Refer to Blue-Green network - Further space to be considered in design if the street is in a high-risk flooding area or high habitat connecting area
Secondary locations	High LOS: create opportunities for placemaking at key locations on the street	Local shopping areas	2m	up to 2.5m	
Other	localised opportunities to be sought to deliver planting, key street furniture or other place features	All other streets	1m	up to 2.5m	
Walking Network	**Level of Service**	**Example Locations**	**Width Applied**	**Target Width for Design**	**Note**
Primary	Widest footways, as these locations have the highest flows. Provision of frequent controlled crossings.	Key shopping / high streets	2.5m (per side)	2.5m to desirably 3m (per side)	See general note 3 re widths.
Secondary	Wider footways as these locations have higher flows than local footways	Local shopping areas or important walking routes	2m (per side)	2m to desirably 2.5m (per side)	
Local	Footway widths to accommodate easy passage of pedestrians, wheelchairs and mobility scooters.	All other streets	2m (per side)	2m (per side)	
Cycling Network	**Level of Service**	**Locations**	**Width Applied**	**Target Width for Design**	**Note**
Primary	Highest LOS: protected and direct cycle routes, either cycle tracks protected from traffic or using quiet streets where motor traffic has been restricted See general note 4.	Most important routes for citywide cycle network – connecting communities to each other, key destinations and the city centre. See general note 4.	2m (per direction)	2m (per direction) – can reduce to 1.75m. desirably 2.5m or wider or 3m (bi-directional), desirably 3.5m or wider NA for quiet streets	Width includes for buffer between cycle track and other traffic.
Secondary	High LOS: potentially less direct cycle routes that generally provide a low-traffic, low speed environment for cycling. Also including traffic free paths or where those cycling will use bus lanes. On stretches of route that use the primary or secondary general traffic network, or other busier streets,	All other routes in the citywide cycle network routes	1.75m (per direction)	NA for quiet streets Segregation 1.75m (per direction) preferably wider	Width includes for buffer (0.25m minimum) between cycle track and other traffic

	cycle track protection should be provided where feasible,			or 3m (bi-directional), desirably 3.5m or wider	
Local	Cycling mixed with low speed traffic in quiet residential streets	All other streets	n/a	n/a	
Public Transport Network	**Level of Service**	**Locations**	**Width Applied**	**Target Width for Design**	**Note**
Tram	Highest LOS: maximise protection of journey times	All tram lines	3.25m (per direction)	3.25 (per direction)	Greater width required at tram stops
Primary Bus	Highest LOS: Reliable bus services - aiming for the greatest reductions in journey time relative to 2023	Highest frequency routes: 7 or more buses per hour (10+min frequency)	3.25m (per lane)	Generally 3.25m (per lane)	Width applies to max speed limit of 30mph. Local reduction to 3.0m possible.
Secondary Bus	High LOS: Aiming for Reliable journey times reduced relative to 2023. Buses likely to mix with general traffic for greater lengths of the route	Between 4-6 buses / peak hour (10-30 min frequency)	3.25m (per lane)	Generally 3.25m (per lane)	Width applies to max speed limit of 30mph. Local reduction to 3.0m possible
Local Bus	Buses predominantly mix with lower volumes of general traffic	All other bus routes: <2 buses / peak hour (<30 min frequency)	3m (per lane)	3m (per lane)	Shared with traffic
General Traffic Network	**Level of Service**	**Locations**	**Width Applied**	**Target Width for Design**	**Note**
Primary	Important strategic connection for high volumes of motor traffic. Seek to avoid congestion causing delays to public transport.	Key radial and orbital routes	3m (per lane)	3m (per lane)	
Secondary	Streets provide a key connecting function for motor traffic, generally with moderate traffic levels. Seek to avoid congestion causing delays to public transport.	Neighbourhood connections	3m (per lane)	3m (per lane)	
Local	Low speed, lower traffic volume streets for local access to homes and services	All other streets	2.75m (per lane)	2.75m (per lane)	Reduced widths are often acceptable on quiet streets
Loading and Parking	Level of Service	Example Locations	Width Applied	**Target Width for Design**	Note
Mixed loading and car parking	Timed-operation loading space in reasonable proximity to premises. Blue-badge parking as close as possible to residential premises. Residential car parking within reasonable walking distance of residential premises	Residential and shopping streets	2.5m	2.5m	In some cases residential parking for premises on primary corridors may be located on nearby side-streets
Loading only	Timed-operation loading space in reasonable proximity to buildings	Shopping streets	2m	2.5m	
Car parking only	Blue-badge parking as close as possible to residential premises. Residential car parking within reasonable walking distance of residential premises	Residential streets (without drive-ways)	1.8m	1.8m	

General notes:

1. *Widths given here are as used for the SAF process. This table is not intended to be used for detailed design guidance; reference should be made to appropriate documents including Edinburgh Street Design Guidance*

2. The Place quality of a street is not merely a function of width. Appropriate materials and sensitive design are crucially important, not least within Edinburgh's World Heritage Site and Conservation Areas. See the Edinburgh Design Guidance for further information. Nevertheless, items with an important place function such as trees, benches, or simply space to linger and talk do require physical space, hence the widths indicated here

3.. The nature of the street network and the need to balance priorities means that on limited sections of primary cycle routes a lower level of service, provided by sharing of bus lanes, white line separated cycle lanes, or in exceptional circumstances streets shared with all traffic, may be necessary. However, this lower level of service should be avoided wherever possible. The space allocation principles set out in table 3.2 should be applied to resolve conflict between street uses. Routes where the level of service set out in this table is impossible over long lengths without unacceptable impact on place, walking and/or public transport cannot be Primary cycle network routes

3.4 Identification of Conflicts

To understand where the network proposals can and cannot be accommodated within the available geometry of the city's transport network, each modal network was added as a layer alongside the available street geometry (between building lines and/or edge of corridor boundaries) within the GIS mapping platform for the project. This covered a study area of all parts of the network within the Council's boundary.

The widths assumed for the purpose of the initial identification of conflicts are aligned to the width requirements for each mode within the Edinburgh Street Design Guidance and are set out in Table 3.1 above.

When applying these widths within the GIS-based conflict mapping, the following additional considerations were considered at the outset:

- If there is space pressure resulting from the need for both place and loading/car parking, then only one width (the higher width) was included, on the assumption that these functions can be staggered along the same the length of the street within the same cross-section space (where the symmetry of street proportions and kerb lines are important to a street's surrounding character, such as in the New Town, this should be identified within design briefs)
- If the street is on the primary network for walking/wheeling, cycling and public transport, then assume that bus stop bypasses will be required
- If the street is on the primary or secondary walking/wheeling network, then assume that regular formal street crossings are required.

From this initial exercise, an overall conflict map was generated to highlight the following pressures on the network:

- **Green**: desirable minimum widths for the modal networks proposed can be accommodated in the available space (including a +10% tolerance to allow for local variance in the automated process). It is highly likely that all modes can be accommodated and provide good levels of service
- **Amber**: desirable minimum widths of the modal networks proposed are within 90% to 110% of the available space. It is likely that some space conflicts will arise, but these may be able to be resolved through careful design and detailed examination of the space
- **Red**: desirable minimum widths of the modal networks proposed are higher than 110% of the available space. It is highly unlikely that these modes can be accommodated through careful design, and instead a network-level solution is likely, either by:
  - Considering if one mode can be locally or more widely re-routed to avoid the red pinch point, whilst maintaining integrity of that modal network; or

- Providing a bespoke design or traffic management solution that optimises the levels of service that can be achieved for each mode in the space that is available; or
- Accepting that little or no change is feasible given the available widths and/or demand on streetspace

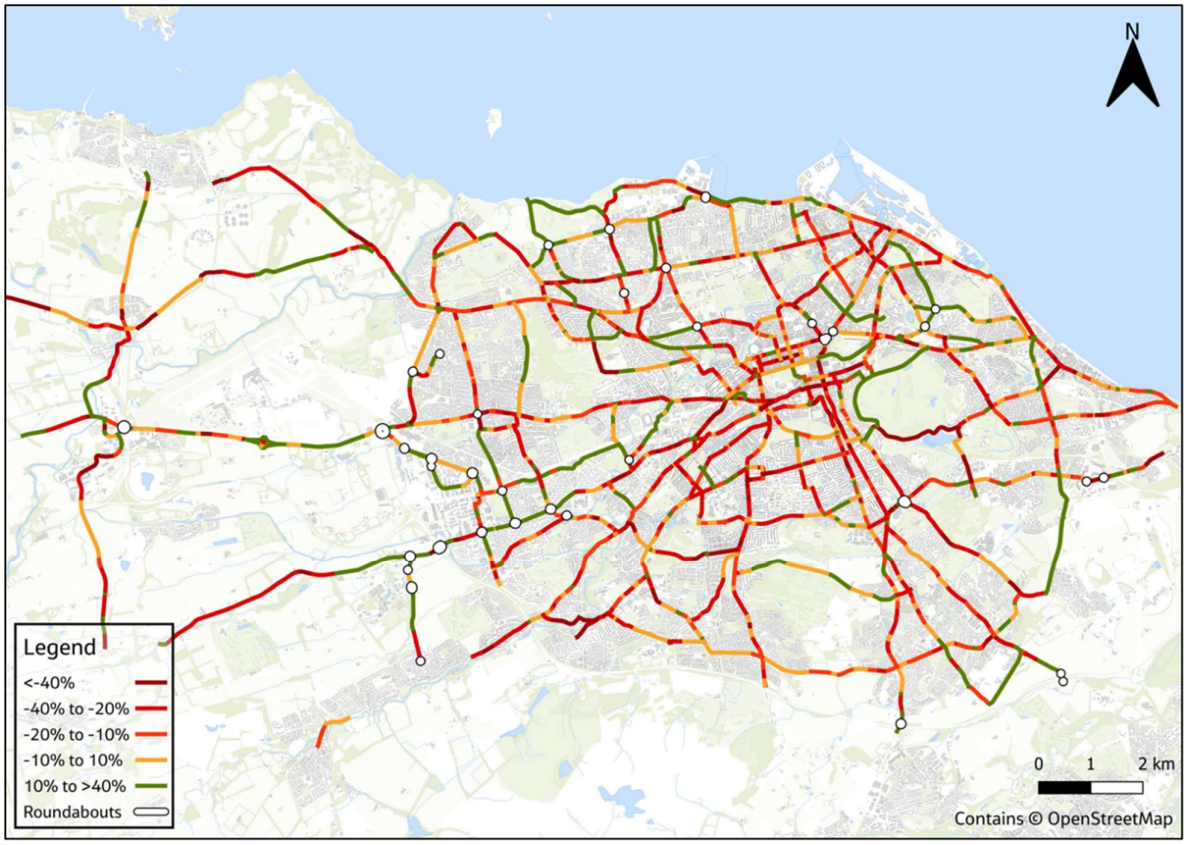

Figure 3.6 – Initial Conflict Map, showing the percentage of excess space available when accommodating all desired modes (based on the width requirements set out in Table 3.1)

To check how sensitive the conflict mapping is to potential design / space reallocation solutions, the following tests were applied to the network at a global level:

- Examining the conflicts with absolute minimum widths from ESDG instead of desirable minimum widths;
- Reducing general traffic lanes to one in each direction;
- Removing bus lanes and assuming that bus priority could be provided through bus gates or priority signalling and where bus journey times and levels of service can be maintained/enhanced;
- Assuming that cycling would take place in bus lanes;
- Bus lanes provided only in one direction where they are present or desired in both and where bus journey times and levels of service can be maintained/enhanced; and
- Providing directional rather than uni-directional cycle tracks.

Clearly, there will be many locations where one or more of these tests couldn't feasibly be applied on street. However, the purpose of the tests was to understand at a global network level how 'fixable' the conflicts arising from Figure 3.1 would be by applying these potential solutions.

Each test made some degree of improvement, by resolving some of the red conflict areas to varying degrees. To highlight the scale of the change, the tests described above were combined to indicate where the remaining 'red' conflict areas would be on the network, as shown in Figure 3.7.

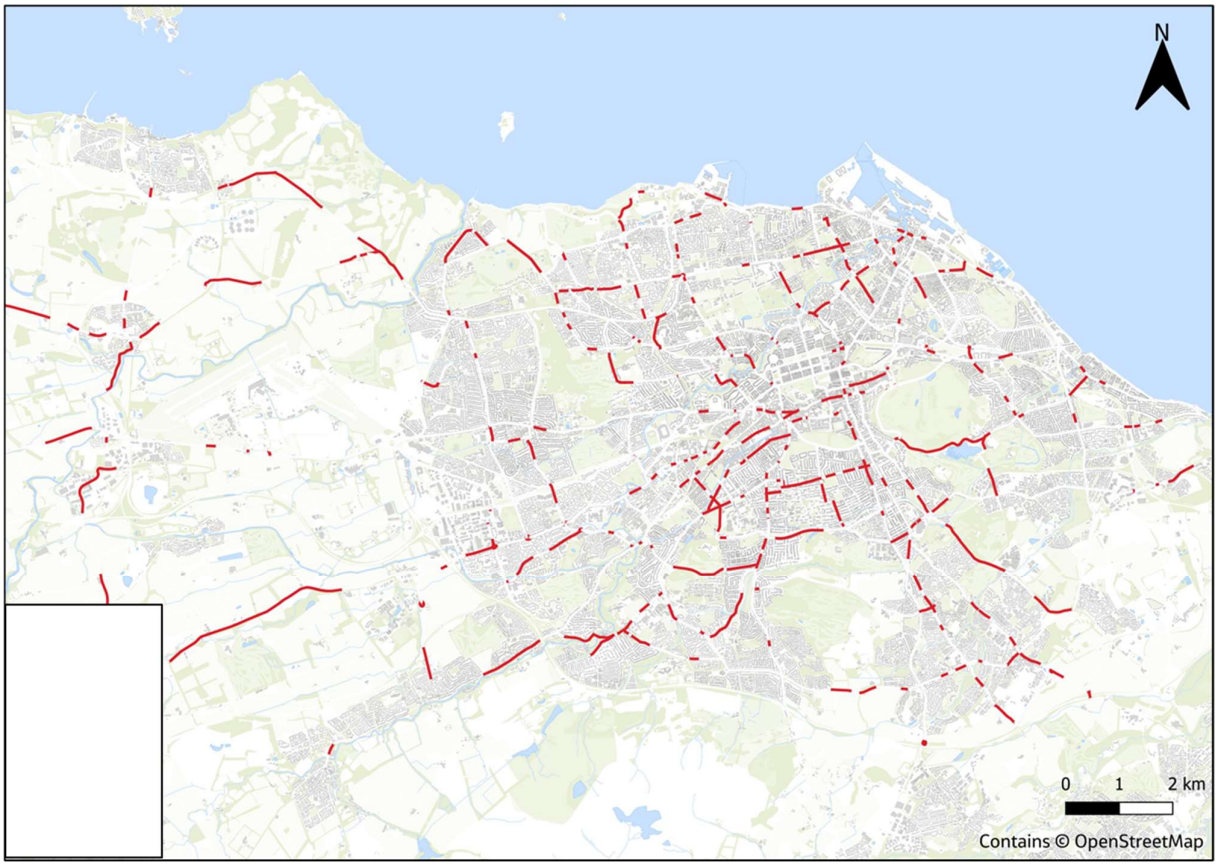

Figure 3.7 – Residual Conflict Map

This highlights that even when applying the various space reallocation measures listed above, there will still be significant lengths of residual 'red' conflict sections of street on the network. As noted above, these sections will require another solution in the form of bespoke design, re-routing of certain modal networks or, ultimately, acceptance that little or no change is feasible.

3.5 Resolution of Conflicts

When setting out to resolve the conflicts identified on the network, the overarching aim is to optimise the LOS that can be achieved collectively for placemaking and for sustainable modes of travel (walking, wheeling, cycling and public transport) at a network level. This approach aligns to the strategic aims of the CMP and will ensure that, even if the desired networks for each mode cannot be delivered in full, the best level of service for users of the network is achieved.

The principles that were set out and agreed at the Transport and Environment Committee meeting in December 2022 have been developed further to guide the resolution of conflicts in project design. These principles align with the overall aims of Our Future Streets set out in Section 2.2 and in Table 3.2 below.

Table 3.2 – Principles to guide the resolution of conflicts for space

Principles for place	
Primary and secondary	Prioritise the delivery of a high-quality street environment over private motorised vehicular flow, to enhance our city centre and town centres to keep them fit for future.
All locations	Avoid causing increases in public transport journey times, considered along whole routes
	Always consider flood risk and the need for associated measures
Principles for walking and wheeling	
Primary and secondary	Prioritise the delivery of footway widths meeting the relevant level of service target and providing for pedestrian crossing movements over private motorised vehicular flow Seek to avoid any loss of pedestrian space to provide segregated cycling or bus priority.
All locations	Provide route options that everyone can feel safe using at all times
	Ensure accessibility requirements are met
	Avoid causing increases in public transport journey times, considered along whole routes
Principles for the cycle network	
Primary	Provide segregation from motorised traffic, except where the network uses low-flow, low speed streets
Secondary	Provide segregation or unobstructed marked lanes where the network does not use low-flow, low speed streets. Consider measures to achieve low-flow, low speed streets if necessary
Local	low-flow, low speed streets.
All locations	Provide route options that everyone can feel safe using at all times Avoid causing increases in public transport journey times, considered along whole routes. Consider alternative cycle routing options as a last resort.
Principles for the Bus network	
Primary and secondary	Retain and extend priority lanes wherever this will provide a positive impact on public transport journey times - balancing with objectives for place, walking/wheeling and cycling - with the greatest emphasis on the primary network.
All locations	Put in place measures to improve on current overall route public transport journey times

Principles for the Tram network	
All	Treat the same as the primary bus network, though with a stronger assumption in favour of segregation to ensure journey-time reliability
Principles to maintain a good level of service for general traffic	
All	Ensure a clear and coherent network of routes
	Avoid delays that will have a significant knock-on effect to public transport or air quality
	Ensure adequate access to businesses for servicing, with priority given to sustainable modes
	Street design should consider surface water to ensure priority routes are kept clear, but local networks maybe considered for the conveyance of water during exceedance flood events
Principles to ensure adequate provision of parking and loading	
Loading	Ensure that businesses and residents have adequate access to useable loading. In streets with a primary or secondary function for walking, cycling, bus or tram this may mean loading from, timed loading windows and side streets. Logistics hubs may also be a consideration for certain locations.
Car parking	Ensure that residents have adequate access to useable car parking. Consider customer car parking on a street-by-street basis. Prioritise primary or secondary functions for place, walking, cycling or public transport over car parking. This means such streets are likely to have very restricted car parking to achieve the desired level of service for place, walking, cycling and public transport priority.
	Ensure adequate car parking provision for users with accessibility requirements, such as those with mobility issues/disabilities

All these principles, and the trade-offs involved, will enable decision makers to meet the aims of Our Future Streets (set out in Chapter 2) in a structured and more transparent way. In turn, this will help to meet the Council's target to reduce car kilometres by 30% by 2030.

3.6 Revised Networks and the Integrated Network Map

One of the key outputs sought by the Council was the production of revised network maps and an integrated map taking account of the desired levels of service as in table 3.1 and the principles in table 3.2 alongside real available street widths across Edinburgh's road network.

These revised maps will set a much clearer context for the development of future projects, avoiding each one starting from 'square one'. In order to derive these revised maps, a workflow has been established to guide the decision-making process on space allocation where conflicts need to be resolved. This is set out in full in Appendix A, and in summary form in Figure 3.8.

Firstly, at a network level, it is important to understand what if any alternative routes exist for each mode. Although the first steps of the workflow will seek to resolve conflicts through reallocation of space within each corridor or street rather by seeking alternative routes, it is important to understand and 'bank' these alternatives to aid later steps of the workflow. It will also ensure that the full network implications for each mode are considered at the earliest stage, thereby mitigating any risk of 'fragmented' solutions for each modal network.

At an individual street or corridor level, the workflow can then be summarised by asking the questions below:

1. Can we accommodate all networks and their level of service targets through careful design, including reallocating space currently given to moving traffic, car parking and loading to bus lanes or space for place, walking/wheeling or cycling?
2. If not, can the desired level of service for bus be maintained without some sections of bus lane (for example by retaining bus lanes on congested junction approaches but re-allocating to other uses where general traffic queuing is less common, by providing bus priority through traffic signals and/or by reduction in traffic volumes)?
3. If not, is there scope to move the general traffic network to an alternative route, with impacts that are consistent with the level of service targets in table 3.1?
4. If not, can the cycle network be moved to an alternative route?
5. If not, can traffic be sufficiently calmed to allow mixed cycling?

Asking these questions allows identification of proposed changes, either to streetspace allocation (for example removal of car parking or loading, amendments to bus lanes), or to networks, involving amendments to the proposed general traffic or cycle networks. Cumulatively the result is an amended set of network proposals and an integrated map.

If the answer to any of the sequential questions was ‘yes’, then the allocation of space for place and transport modes on that corridor was set aiming to achieve the level of service targets in table 3.1 for relevant street users (i.e. those with networks on the street section concerned). The aim was also to maintain the coherence and integrity of each mode at a network level, where necessary following the trade-off principles set out in table 3.2.

If the answer to all of these sequential questions was ‘no’, and this applies over a significant street length. then a network solution was considered. For shorter sections or where no network solution is available, issues will need to be resolved at the project level, taking the Integrated network map (see below) as a starting point.

The outcome of the above process is that, because of the likely impacts, the alignment of the place, walking/wheeling, bus and tram networks have not been amended in the conflict resolution process.

Moving of the place and walking/wheeling networks was not considered as these networks are fundamentally linked to the nature of the streets concerned. For example, it is impossible to move the ‘place’ function of a town centre away from the town centre concerned. The possibility of moving elements of the bus network to alternative routes was considered in the process. However, nowhere was this considered to be practical or desirable (see also 3.6.5) and so for simplicity this step has been excluded from the above summary. It is possible that this might be re-examined in future as part of wider work on the future of the bus network for the city.

The detailed workflow shown in figure 3.8 and Appendix A is sequential. However, its iterative nature and the fact that streets vary along their length mean that the questions are essentially considered in parallel, bearing in mind level of service targets and principles. The intention of the resulting Integrated map is to provide a clear starting point for the design of individual projects. Project managers can then refer to the principles and the Edinburgh Street Design Guidance to resolve remaining conflicts. There may also be merit in producing further ‘trade off’ guidance - see ‘next steps’ section below.

Route segments were first considered separately. However, where it is impossible to resolve conflicts satisfactorily on a significant portion of a whole route (for example on the A702 through Morningside), a Network level solution has been proposed. Due to the impossibility of moving walking and place networks, the very problematic nature of moving the bus network, and impacts of moving the general traffic network, it is the cycling network that has generally been moved in these circumstances.

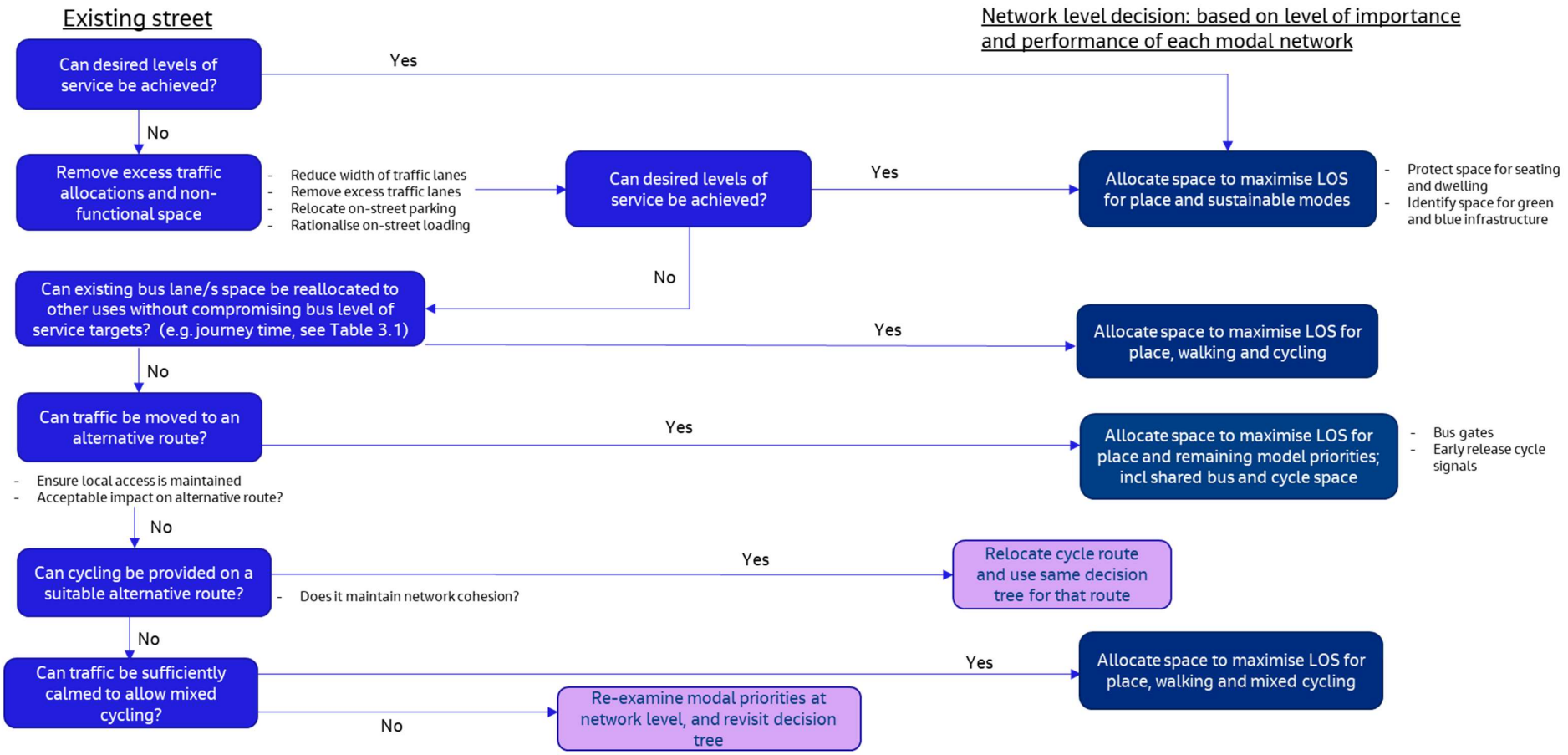

Figure 3.8 – Summary of SAF Decision Making Workflow

3.7 Outputs

3.7.1 Overview

The three principal outputs of the SAF are:

- Revised modal networks for cycling and general traffic, showing where these have been adjusted from the input mapping to help resolve conflicts (Figure 3.9 and 3.10)
- An integrated network map, showing the recommended allocation of space on the most strategically important streets and corridors (Figure 3.11)
- Allocation frameworks (design intents), providing further detail on the space allocation priorities for corridors and streets. These are under development. They are intended to build on the 'typical' cross-section types on the future network, which are set out in Figure 3.12

These outputs are summarised on the following pages and described further in the next sections of this chapter.

3.7.2 Key Changes

Based on the SAF process and the recommendation emerging from it, the following key changes are expected on the networks:

- No change to the total length of the bus and tram networks (as set out in section 3.5)
- A reduction in the total length of the proposed primary and secondary general traffic network due to proposed changes to improve the level of service for place, walking/wheeling, cycling and public transport (City Centre, Portobello, Dalry)
- A reduction in the total length of the proposed primary cycle network as presented to committee in 2023, largely due to the desired levels of service not being achievable for cycling on certain sections of the network. This is either due to the required LOS for cycling being unachievable without unacceptable impact on public transport, place, walking/ wheeling or general traffic congestion, or absolute space constraints

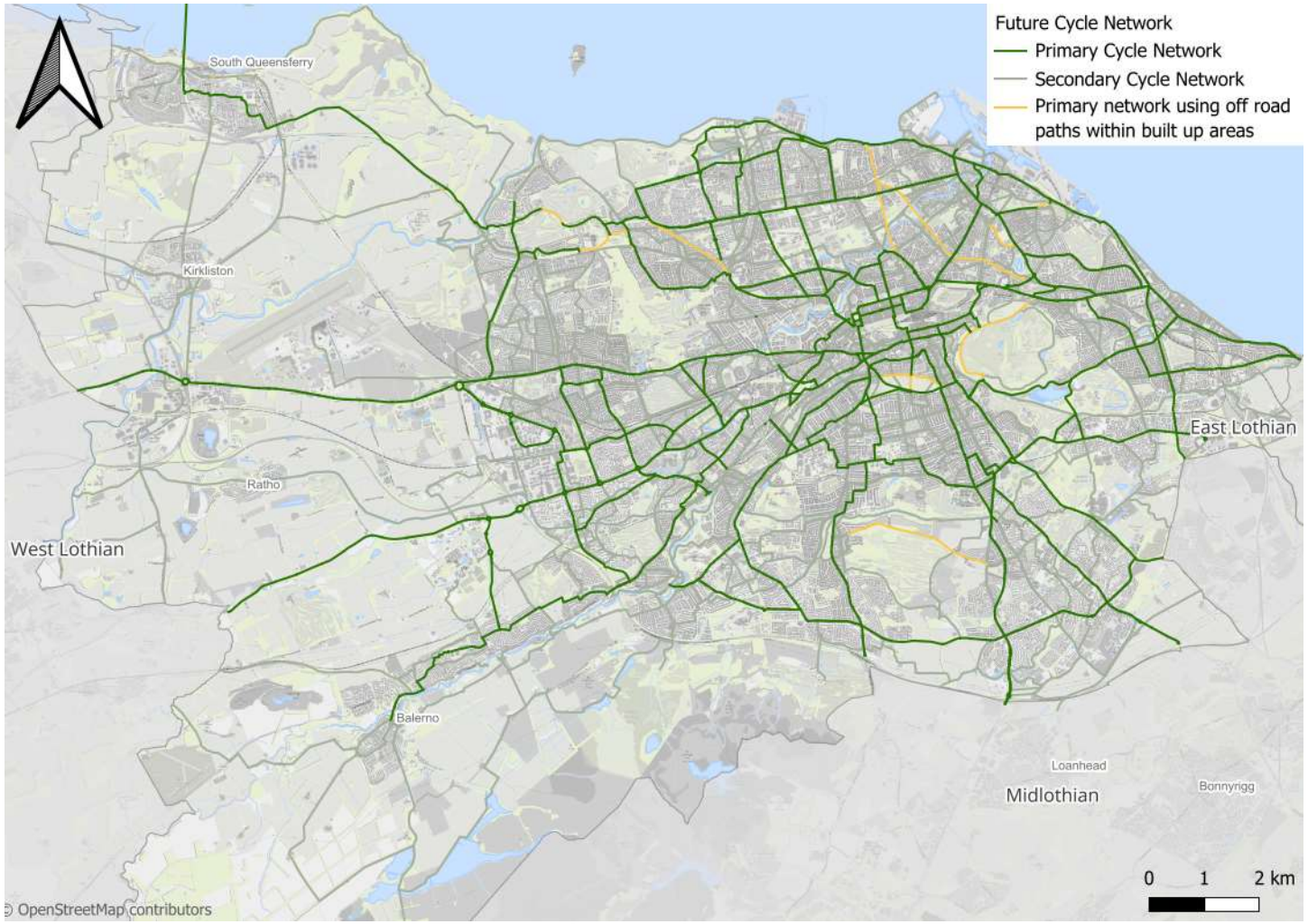

Figure 3.9 – Recommended Future Cycle Network

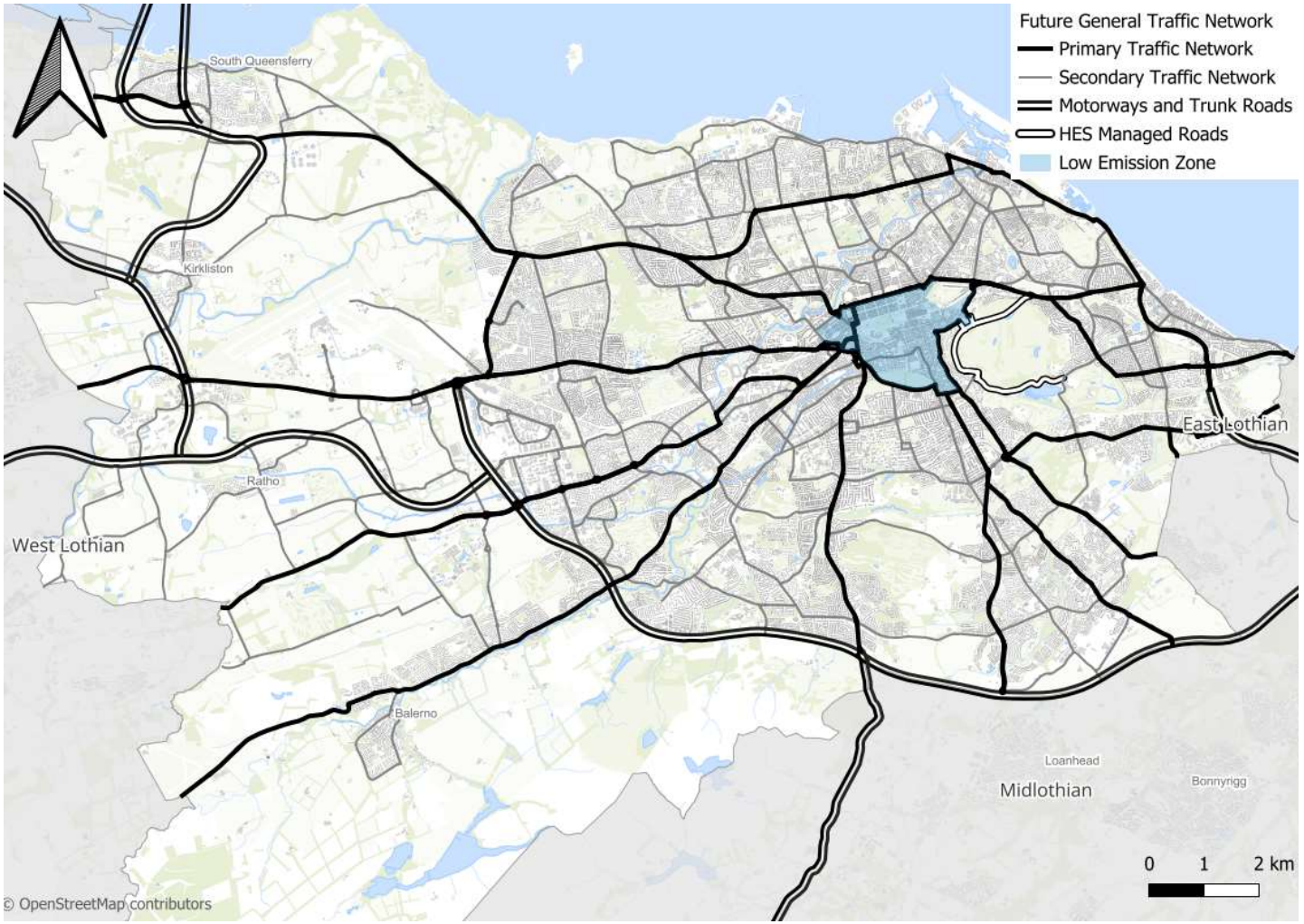

Figure 3.10 – Recommended Future General Traffic Network

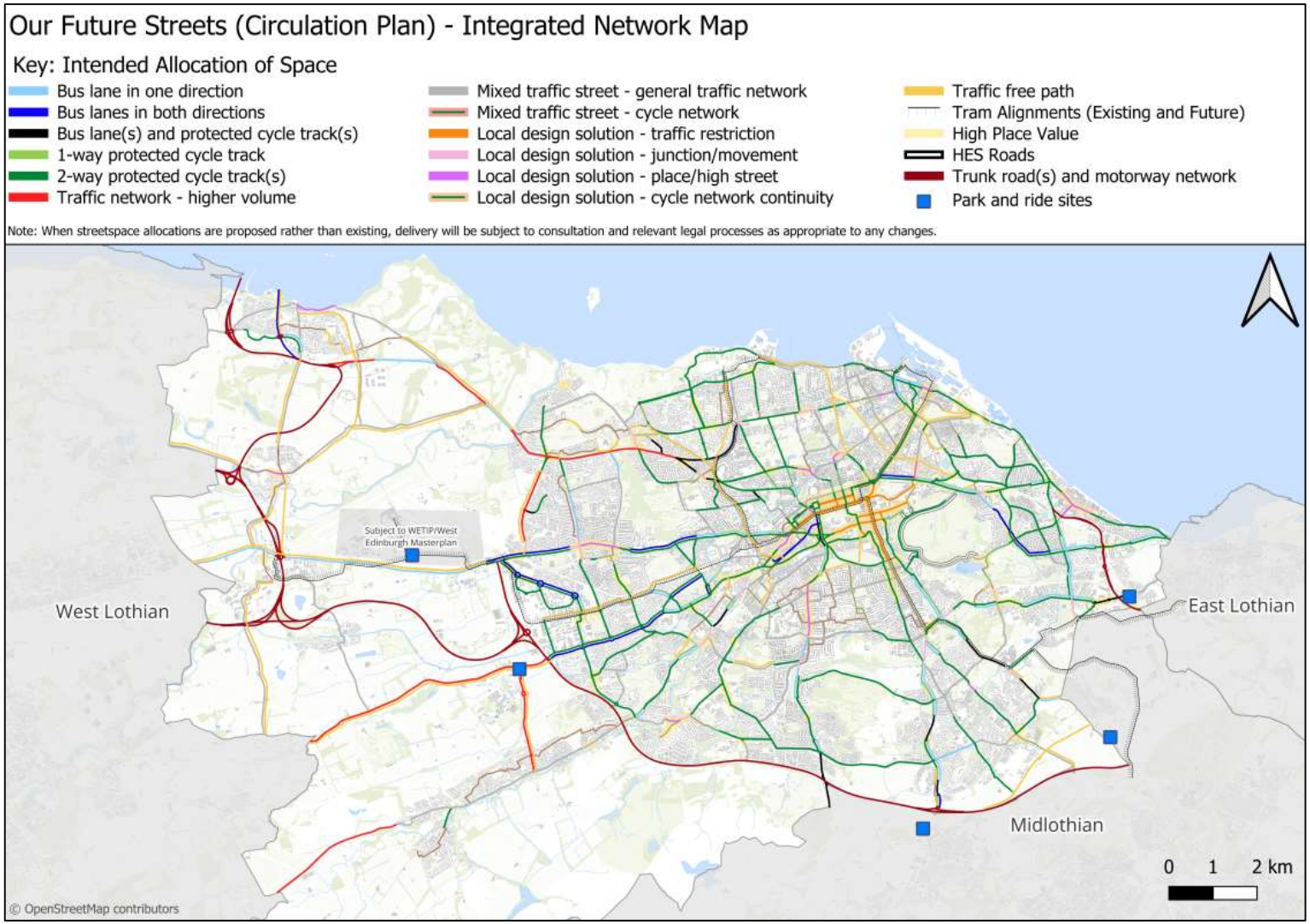

Figure 3.11(a) – Recommended Integrated Network

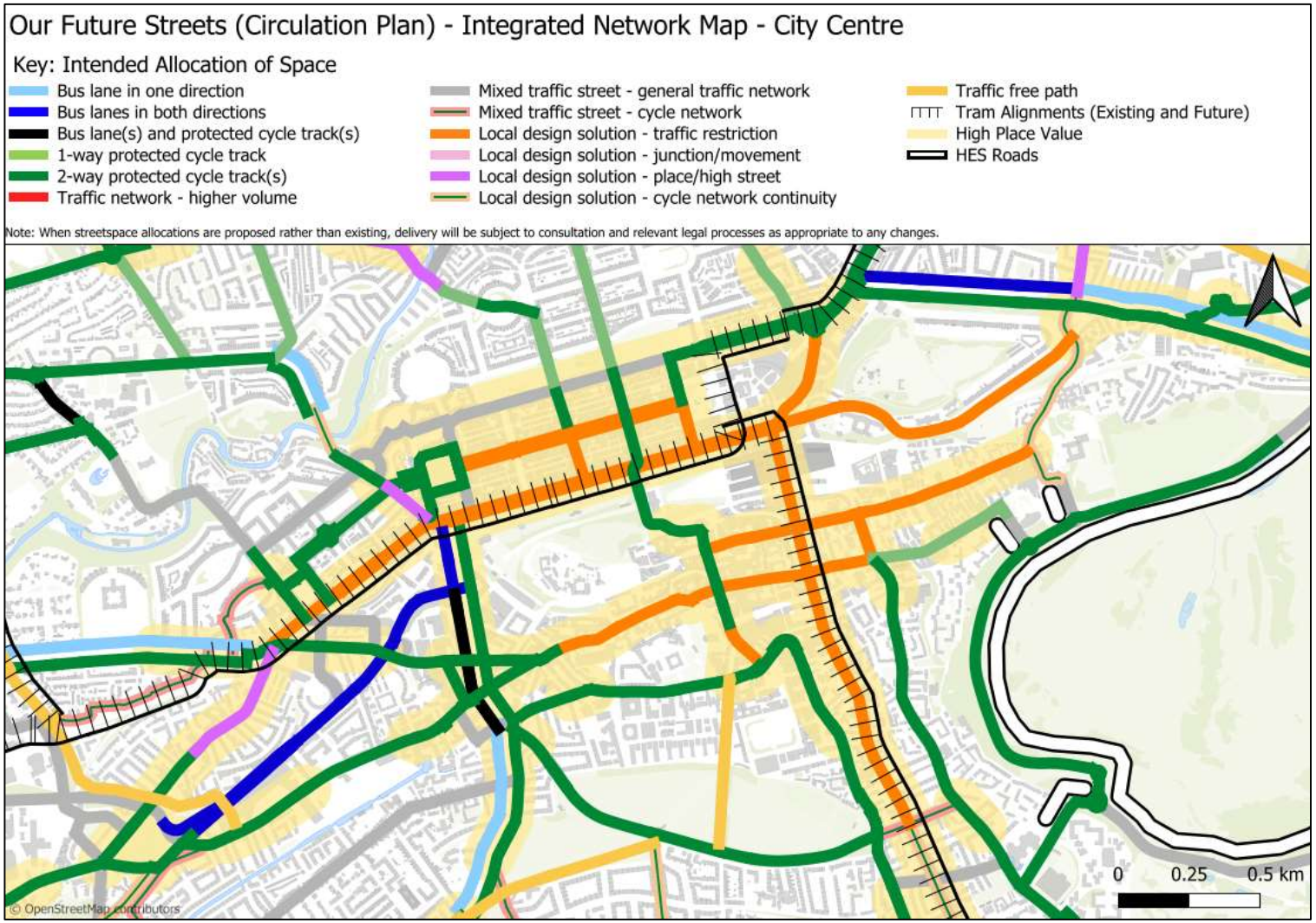

Figure 3.11(b) – Recommended Integrated Network – City Centre

Table 3.3 – Integrated Network – Key Descriptions

Key Item	Description
Bus lane in one direction	A bus lane may be most useful on the congested approach to junctions, therefore on a longer stretch the lane may switch between sides of the street
Both lanes in both directions	n/a
Bus lane(s) and protected cycle track(s)	More detailed work is required to confirm whether one or two bus lanes are accommodated. Where this is the only key line, cycle tracks should be provided if the space is not required for bus lane(s)
1-way protected cycle track	Cycle track provided only in one direction. In the same way as a single bus lane, this may switch between sides of the street, for example on an uphill section or on opposite side to a 1-way bus lane
2-way protected cycle track(s)	Could be a 2-way cycle track on one side of the street, or two 1-way cycle tracks on each side of the street
Traffic network – higher volume	Streets where there is and will continue to be a high volume of motor traffic. Interventions to support bus priority and safe walking and cycling will be explored, such as intelligent traffic signals, crossing provision and localised cycle safety measures
Mixed traffic street – general traffic network	Constrained streetspace means that opportunities for prioritising walking, wheeling cycling and public transport are limited. Local design solutions should seek to take opportunities for improving placemaking, walking and cycling conditions and prioritising buses over other motorised traffic
Mixed traffic street – cycle network	Low traffic, low speed streets
Local design solution – traffic restriction	Through movements for motor vehicles will be restricted, generally exempting buses, pedestrians and cyclists and with other managed exemptions (for example to facilitate business operations and ensure access to local residents, businesses and services)
Local design solution – junction/movement	Design solution to be developed at the project stage, with an emphasis on achieving safe and efficient movement through the junctions, prioritising public transport, walking and cycling over general traffic
Local design solution – place/high street	Design solution to be developed at the project stage, with a particular emphasis on the street's place function
Local design solution – cycle network continuity	Constrained streetspace means opportunities for prioritising walking cycling and public transport are limited, however the link is a key connection to ensure the continuity of the cycle network. Local design solutions will be considered, drawing on The Edinburgh Street Design Guidance as appropriate
Traffic free path	Path may be parallel to the street, or pass through greenspace
Tram alignment (existing and future)	Existing route or proposed future extensions of Edinburgh's tram network
High place value	High priority for place interventions – see Place map (Figure 3.1) and Level of Service (Table 3.1) for details
HES roads	Roads operated by Historic Environment Scotland

Category Key	Widths without Place or Parking	Widths with Place	Widths with Parking & Loading	Typical Cross Section without Place Widths or Parking	Typical Cross Section with Place	Typical Cross Section with Parking & Loading
Low Speed Traffic Conditions	10.5m+	15m+	15m+			
Traffic Restriction	10.5m+	15m+	15m+			
1-way Bus Lane with Cycling in Bus Lane	13.75m+	18.25m+	18.25m+			
1-way Bus Lane with Cycling in Bus Lane & 1-way Cycle Track	15.75m+	20.25m+	20.25m+			
2-way Bus Lanes with Cycling in Bus Lane	17m+	21.5m+	21.5m+			
Traffic Lanes (higher volume)	10m+	14.5m+	14.5m+			
Traffic Lane (higher volume)	16m+	20.5m+	20.5m+			
Traffic free path	4m+	4m+	4m+			
Traffic free path	3m+	3m+	3m+			

Category Key	Widths without Place or Parking	Widths with Place	Widths with Parking & Loading	Typical Cross Section without Place Widths or Parking	Typical Cross Section with Place	Typical Cross Section with Parking & Loading
2-way Protected Cycle Track	14.5m+	19m+	19m+			
Bidirectional 2-way Protected Cycle Track	14m+	19.5m+	19.5m+			
Unidirectional 2-way Protected Cycle Track & 1-way Bus Lane	17.75m+	22.25m+	22.25m+			
Bidirectional 2-way Protected Cycle Track & 1-way Bus Lane	17.25m+	21.75m+	21.75m+			
Unidirectional 2-way Protected Cycle Track & 2-way Bus Lanes	21m+	25.5m+	25.5m+			
Bidirectional 2-way Protected Cycle Track & 2-way Bus Lanes	20.5m+	25m+	25m+			
Place	Add 2.5m+ for place	Add 2m+ for parking	Add 2.5m+ for loading			

Figure 3.12 – Typical Cross-Section Types to be Applied to Future Network

3.7.3 Addressing Conflicting Demands on Streetspace

The greatest conflicts for space arise where the primary place, cycle, bus, tram, general traffic, car parking, loading, and blue/green infrastructure are all desired on the same corridor. This usually occurs on high street sections where the desired place function is highest.

Leith Walk provides a useful example of where the level of service for certain modes has been compromised in order to accommodate all modes in the same corridor. All modes have been accommodated here through careful design, but it is clear that there are some sub-optimal outcomes. The Integrated network map and application of the principles in table 3.2 the SAF should help address similar complex situations in future, via its method for reaching acceptable compromises

As set out in Figure 3.4, there are areas of the network where all intended priorities cannot be accommodated within the space available. The following sections discuss in more detail examples of how the SAF has been applied to address conflicts through the integrated network map.

3.7.4 Moving the General Traffic Network

Measures to relocate through general traffic on sections of the network will support the aims of Our Future Streets by reducing the volume of through-traffic on certain streets, thereby making it significantly easier to provide good levels of service for place, walking/wheeling, cycling, bus, and tram that are adapted to the future climate. The changes will also make driving through the city centre, less attractive, thereby supporting the aim to reduce private car kilometres by 30%, and encouraging a shift to public transport, and to walking and cycling for shorter journeys.

Where traffic movements are to be changed and/or restricted, local access will need to be retained for residents, businesses, deliveries and servicing, even if those trips are less direct than they are currently. Care will also be needed to minimise the impact of any traffic displaced by local restrictions.

Traffic restrictions will either require filtering and/or managed access on identified streets. This could range from no entry signs and marked diversions, to bus/tram gates, or physical barriers including planters and bollards. Aside from the city centre, which is discussed separately in chapter 5, these restrictions are suggested for consideration in Portobello, and Gorgie/Dalry as part of the development of these project proposals.

3.7.5 Relocating Modal Priorities

For a significant portion of streets, it is not possible to resolve local conflicts either through careful design or through traffic filtering/managed access. This means that adjustments are needed to the desired modal networks that act as inputs to the process, in order to retain suitable levels of service for each mode and to maintain the integrity and coherence of the network. In certain areas where there is a high risk of surface water flooding the more adjustments will be required in the design process.

Bus and tram networks

As noted in section 3.5, there are no locations where it is deemed necessary or desirable to move bus network. This is because the potential alternative routes for services are either:

- located too far from the existing routes and the people and/or destinations that they serve (and sometimes on corridors that are already well served by bus); and/or
- the alternative routes are on quieter residential streets that are typically less direct, often too narrow to be suitable for bus services and where (linked to the point above), many fewer people would be served

Similar arguments apply to the tram network – in addition it is clearly impractical and unaffordable to consider moving existing routes. Extensions to the tram network are currently being considered and these are following the principles and methods outlined by the SAF.

Cycle network

There are a number of locations where the SAF recommends that cycle routes are relocated or that a primary network is downgraded to a secondary/local network, as it is not possible to accommodate the primary level

of service over a significant distance, either due to physical constraints or significant negative impacts on other modes and their networks, especially public transport.

The cycle network needs to act as a 'spider's web', allowing different users to join the network at as many points as possible and to make different combinations of journeys on the network.

Therefore, the relocation of a cycle route is not simply a case of moving the network from one corridor to the next, but ensuring that as good a level of service as possible can be provided across the full network, and that routes connect to the local street network as well as possible.

A cycle network of the safe standard sought requires protection from busy traffic. On primary and secondary general traffic networks this generally means that segregation is needed to deliver the desired level of service. But unlike walking/wheeling, for which there is an essentially complete if imperfect network in existence, most sections of the proposed cycle network that follow the primary or secondary general traffic network are not currently segregated. This means that delivery of the cycle network is significantly more challenging than other modal networks in terms of the re-allocation of space needed.

With all the above in mind, the SAF makes a number of adjustments to the initial desired cycle network. The revised cycle network map is set out in Appendix A and includes the following proposed relocations and deletions of the primary cycle network:

- A90 Queensferry Road route – Blackhall westwards - relocated to NCN1, using off road paths and quiet streets to the north
- Inverleith Row route relocated to the Canonmills to Trinity off-road path
- Deletions from Bonnington Road and Easter Road
- Deletion from Lasswade Road
- Deletion from Craigmillar Park and the Bridges, with alternative parallel routes
- A70 Lanark Road / Slateford Road – relocation of parallel streets connecting to Gorgie Road
- A702 - Primary cycle route relocated to local streets between the Meadows and Greenbank
- Deletion from Gilmour Place, parallel by Dundee Street
- Deletion from Drum Brae
- Deletion of a number of shorter lengths of street where precedence has been given to bus priority or where width precludes an effective safe solution, including Crewe Road North, Newhaven Road, Pilrig Street, Captains Road, Greenbank Road, Gillespie Road

3.7.6 How Does This Affect Junction Layouts?

Junctions are often the locations with the greatest competition for space on the street network. However, each is different, and the SAF cannot practically set out in detail how space should be allocated at every junction on the network. Instead, individual junctions require to be designed in accordance with the Council's Street Design Guidance (a 'factsheet' on signalled junction design is scheduled for delivery in the coming financial year).

The SAF approach involves seeking continuity of networks that pass through a junction using the conflict resolution principles set out in Table 3.2.

Achieving connectivity through junctions is particularly important for the cycle network, as unsegregated cycling movement through busy junctions is the least safe part of cycling on the street. However, this presents a significant delivery challenge as minimising delay through junctions is also a key aspect of reducing bus journey times and improving reliability. Furthermore, safe and comfortable conditions for pedestrians at junctions require space and time allocation. But the SAF provides a new and clearer starting point and a clear framework for design decision-making,

3.7.7 Local Mixed Traffic Solutions

Some sections of the networks are proposed to have specific mixed-traffic design solutions to facilitate the mixing of networks on the street section concerned. In particular this will be on sections of street where cycle

users will have to mix with general traffic. These are indicated on the integrated network map in Appendix A, and include Bernard Street (Leith). On other streets less critical to cycle network connectivity, there is an acceptance that, for the foreseeable future, the only feasible action to promote safer mixed cycling (which clearly also has other significant safety benefits) is reducing the speed limit to 20mph.

3.8 Implementing, Updating and Communicating the SAF

If the SAF process becomes established and its recommendations for the long-term reallocation of space across the network are agreed, three further questions need to be addressed:

- What is the process for implementing the SAF recommendations?
- How will the SAF process be updated and revisited over time?
- How should the SAF be communicated?

3.8.1 Implementing the SAF Recommendations

The intention is that the SAF recommendations will be used to inform the implementation of all future projects affecting Edinburgh's street network, at local and strategic scales. This will ensure that individual projects, including those targeted at improving conditions for one mode of transport or in one location, are set in the context of the holistic SAF approach to allocating space across the city's street network and deliver good outcomes for place, sustainable modes, and general traffic.

In order to further assist project managers it is recommended that additional guidance is produced on the application of the principles in table 3.2, with a focus on dealing with more localised conflicts between different street uses. This can build on tables 3.1, 3.2 and the workflow developed here.

3.8.2 Updating and Revisiting the SAF Process

The current outputs of the SAF process provide a long-term framework for the reallocation of space, to ensure that aspirations remain ambitious and that streetspace allocation projects of today always build towards fully integrated networks of the future. The aims and principles of the SAF reflect the direction that Edinburgh's placemaking and mobility strategies have taken over a long period, and so are unlikely to need significant revision in the short to medium term.

However, the SAF is an approach that is innovative in the UK context and in the forefront of international practice. Its use over the coming years will inevitably raise issues that will suggest the need for amendments. Consequently, it is recommended that operation of the SAF is reviewed by early 2026. It is then likely that regular review at intervals of between 2 and 5 years will be appropriate, as the inputs to the process change. This is particularly true for the general traffic network, where the reductions in traffic volumes that are expected in the coming years may create further opportunities to re-examine the current space allocation recommendations. Once the SAF process is established, further opportunities can be re-examined by decision makers in the future, whilst implementing the recommendations from this report in the short to medium term to meet the city's 2030 policy objectives.

3.8.3 Communication of Recommendations

The approach to the reallocation of streetspace across the full city will directly impact those who live on, visit, and pass through the affected streets. Whilst careful communication of these changes is needed as part of each delivery project, there is a distinct opportunity to 'sell' the benefits of the network-wide approach at a city level to convey the overall direction the city wishes to take.

It is therefore important that the emerging outputs of the SAF and the underlying process can be clearly communicated to the public and key stakeholders, as well as the project teams responsible for delivering individual street design projects within the context of the SAF. This will be done by:

- Interactive mapping – the mapping and space allocations documented in this report and associated mapping will be available in GIS format, from which an interactive mapping platform will be made available to allow stakeholders to view the space allocations on each part of the network. This tool could then be made publicly available via the Council's website, if desired, and with careful consideration of audience needs

- Design intents – the space allocation maps and resulting design intents for each of the key corridors identified will be used as inputs to the establishment of future design briefs for downstream delivery projects. The extent of the corridors in each project will take into account the high risks areas of surface water flooding to ensure that climate change risk is embedded in the framework. In this way, design teams can focus attention on detailed design decisions within the strategic framework of the wider network developed by Our Future Streets
- Engagement activities – the SAF principles and concepts will be used to engage key stakeholders as part of future project engagement activities. This could include 'interactive' toolkits to help stakeholders understand space allocation constraints and choices, as used during the 2023 CMP consultation

3.8.4 Monitoring and Evaluation

To ensure that the SAF is being successfully applied and making a positive contribution to future design projects, information will be collected and analysed as each project progresses on how well the designs are able to meet the level of service criteria set out in this report (including on widths assigned to each mode, continuity of cycle and bus priority provision and the priority assigned to these modes at junctions). Projects will be expected to report on how well SAF levels of service are being achieved, alongside project specific objectives. Available data (e.g. traffic counts, journey time data, user research) should also be used to monitor and evaluate projects and policy objectives that deal with street-space allocation.

4 Corridor Investment Priorities

4.1 Introduction

Edinburgh's strategic streets and roads are the main arteries for the movement of people and goods around the city. They present the biggest opportunities and challenges in encouraging sustainable travel. The challenge is increased by the fact that many routes pass through local centres and high streets which have the highest 'place' value.

Continuing to improve public transport, with faster journey times and improved bus stop and interchange facilities, together with improved walking and wheeling connections, and segregated cycle provision, will enhance the attractiveness of these modes, relative to the car. Encouraging mode change is key to moving towards Net Zero targets and CMP objectives.

Due to funding constraints and timescales, it is highly unlikely that substantial improvements to all the city's major corridors could be made by 2030. Consequently, there is a clear need to prioritise investment.

The delivery approach to each corridor will also require careful consideration. Current funding mechanisms, including Scottish Government/Transport Scotland funding streams focussed on particular modes of transport (e.g. Bus Partnership Fund; Places for Everyone) may mean that improvements are sometimes focussed on bus, or on active travel, and/or on particular sections of a corridor. In these cases, the objective will nonetheless be to achieve an outcome consistent with the SAF and therefore with the City Mobility Plan.

In some cases, the benefits of changes on the corridor will be significantly greater if full end-to-end corridor improvements are implemented in an integrated package. In other cases, significant benefits may be realised by focussing on certain sections of the corridor initially (for example via the funding mechanisms noted above). This chapter of the report examines how investment in corridor improvements should be prioritised, with an appraisal of the benefits of full-length corridor packages. It also considers the best means for delivering priorities in the short-medium term alongside the Council's pre-existing programme of local transport and street-based improvements.

4.2 Corridor Appraisal

An appraisal using multiple criteria has been undertaken that examines which corridors are best suited for early investment in public transport priority and active travel improvements. For the purposes of the appraisal, the City of Edinburgh Council boundary area has generally been considered the outer extent and the Low Emission Zone (LEZ) boundary the internal extent of each corridor.

In total, 13 corridors have been assessed as part of the high-level appraisal and are indicated in Figure 4.1 below. These are all composed of the full length or part length of 'A' roads, as defined by Government. Those marked with a (*) denote routes that are not fully 'A' classified but are considered strategic in this assessment.

- A90: Queensferry to Queensferry Street
- A8: Newbridge to Roseburn
- A71: Dalmahoy to Dalry
- A70: Balerno to Haymarket
- A702: Fairmilehead to Tollcross
- A701: Straiton to East Preston Street
- A772: Gilmerton to Liberton Road
- A7: Sheriffhall to East Preston Street
- A6095: Niddrie Mains Road
- A1: Milton Link to City Centre
- A199: Portobello to Newhaven
- A903*: Granton – Stockbridge
- A902*: Ferry Road: Crewe Toll to Great Junction Street

Leith Walk has been excluded from the assessment as this has recently been remodelled as part of the Trams to Newhaven project.

Corridors have been chosen as they have a recognised strategic function, supporting the movement of the greatest number of people and goods within the city or into the city from surrounding regions. Except for A903: Granton – Stockbridge corridor, the corridors are all categorised as 'primary' for general traffic, public transport and cycling, highlighting a need for additional focus when establishing modal priorities.

Typically, corridors currently prioritise general traffic, with bus priority provided where space permits. There is often limited priority or space allocation for place and walking/wheeling, even within defined local centres such as Morningside or Gorgie. There is minimal permanent protected cycling provision, mainly on the new City Centre West to East Link and Leith Walk, with some significant lengths of experimental 'Travelling Safely' segregation on suburban primary and secondary streets (though these typically do not address junctions). The need for improvement, and the resulting competing priorities, is highlighted through the SAF process described in Chapter 3. The analysis in this chapter seeks to identify which corridors should be prioritised for investment, delivering the highest benefits, based on identified appraisal criteria. The city centre is examined in closer detail in Chapter 5, within the overall context of network improvements described in Chapters 3 and 4.

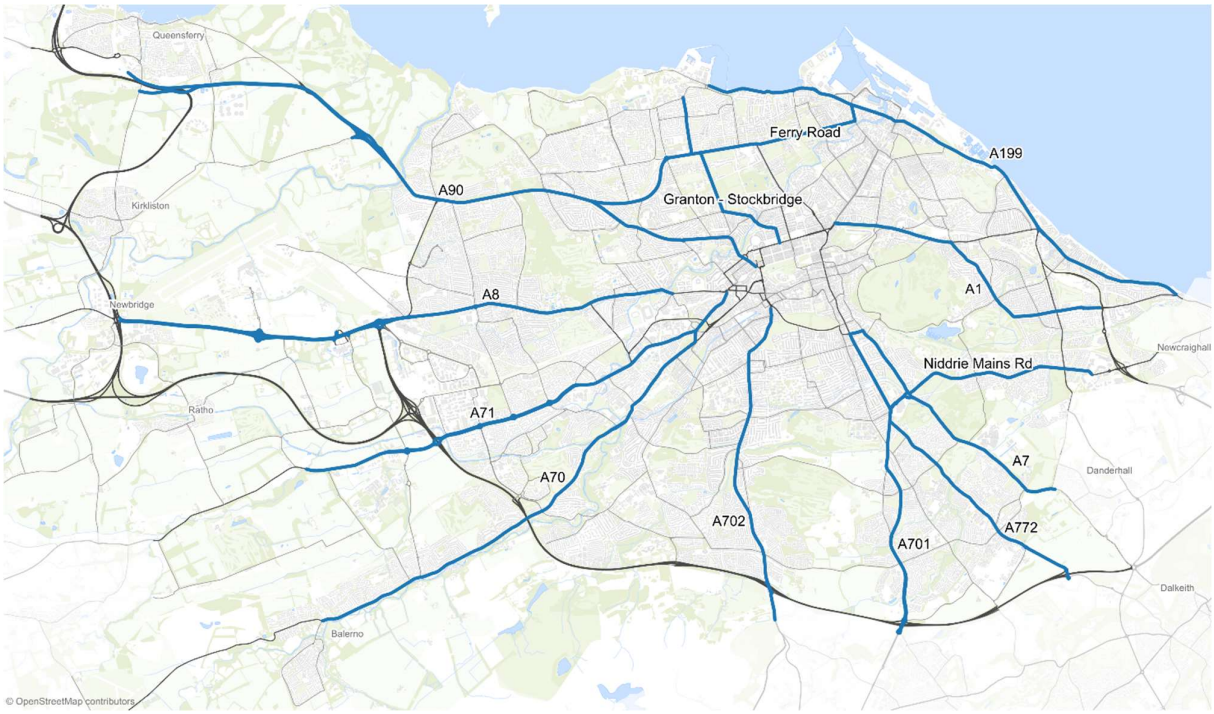

Figure 4.1: Corridors Included in the High-Level Appraisal

4.3 Appraisal Methodology

A high-level assessment was undertaken for all the corridors listed above, following Scottish Transport Appraisal Guidance (STAG) principles. This focussed on the key characteristic that make each corridor suitable for sustainable transport investment.

The priority corridors emerging from the high-level appraisal were reviewed to understand what the existing level of service deficiencies are on each corridor and establish what improvements are required. Corridor specific opportunities were also considered to strengthen the case for investment.

In addition, the feasibility of each preferred corridor has been evaluated, based on deliverability and the cost of implementation. Work has also considered geographical location, with the aim of ensuring a balanced spread of investment and resulting transport benefits throughout the city. Specifically, the assessment has sought to ensure faster and more reliable public transport journeys and the delivery of a high quality, primarily segregated cycle route on at least one corridor in each council locality, delivering safe sustainable

travel for a range of communities. The means for implementing each of these priorities is also then considered.

4.4 High-level Appraisal

4.4.1 Development of Appraisal Criteria

The appraisal of each corridor was carried out in a consistent manner. A standard set of criteria were therefore developed to appraise the corridors, covering all key considerations for assessing sustainable travel investment suitability.

The criteria were developed from the CMP objectives. Understanding what actions are required to deliver the CMP objectives then determining what criteria are needed to assess these actions.

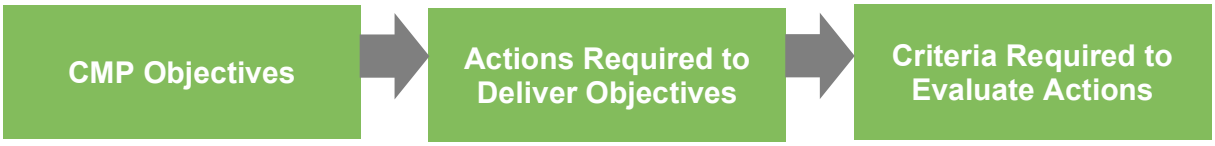

Figure 4.2: Development of Appraisal Criteria

CMP objectives and the proposed actions necessary to deliver against these are listed in Table 4.1 below.

Table 4.1: CMP Objectives and Actions to Deliver Against the Objectives

CMP Objectives		Actions to Support Delivery of the CMP Objectives
Movement To support inclusive and sustainable economic growth and respond to climate change	Increase in the proportion of trips people make by active and sustainable travel modes	1. Target locations for reducing car kilometres driven and promoting more sustainable modes
	Improve sustainable travel choices for all travelling into, out of and across the city	2. Target areas of pedestrian severance, lack of direct safe cycle provision and bus delays
	Reduce harmful emissions from road transport	3. Target corridors with high traffic volumes and poor air quality
	Respond to climate change	4. Target locations that contribute towards local and national policies and climate change targets
	Improve the safety for all travelling within our city	5. Target corridors where safety / accident rates, health and wellbeing can be improved
	Maximise the efficiency of our streets to better move people and goods	6. Target where space is available to improve sustainable modes and where modal networks could be optimised
People To improve health, wellbeing, equality, and inclusion	Encourage behaviour change to support the use of sustainable travel modes	7. Target the biggest network obstacles for people to travel sustainably and build upon projects / proposals already in place creating a connected network
	Ensure that transport options in the city are inclusive and affordable	8. Promote networks that are inclusive and accessible for all, particularly in the areas of higher deprivation
Place To protect and enhance our environment	Reduce the need to travel and distances travelled	9. Target local centres, improving access and sense of Place
	Reduce vehicular dominance and improve the quality of our streets	10. Reduce severance and protect / enhance the surrounding environment (environment, air quality, heritage, etc.)

Table 4.2 summarises the appraisal criteria developed to evaluate corridor projects, and the CMP actions which they seek to support.

Table 4.2: Corridor Appraisal Criteria and Links to Actions

Group	Corridor Appraisal Criteria	Action									
Improving Place and Sustainable Movement	Opportunity to enhance a high street or local centre	**1**	**2**			**5**	**6**	**7**	**8**	**9**	**10**
	Opportunity to improve pedestrian accessibility including overcoming severance	**1**	**2**			**5**	**6**	**7**	**8**	**9**	**10**
	Opportunity to deliver enhanced cycling catering for an important cycle flow	**1**	**2**		**4**	**5**	**6**	**7**	**8**		**10**
	Low traffic volumes, presenting opportunity for reallocation of space without wider intervention	**1**		**3**			**6**				
	Opportunity to improve public transport by reducing delays or increasing reliability	**1**	**2**		**4**		**6**	**7**	**8**		
Policy Integration	Opportunity to reduce transport poverty and inequality	**1**	**2**	**3**	**4**	**5**		**7**	**8**	**9**	**10**
	Opportunity to mitigate negative traffic impacts on air quality	**1**	**2**	**3**	**4**	**5**				**9**	**10**
	Ability of investment in the corridor to support new development and/or regeneration				**4**				**8**	**9**	**10**
Deliverability	Integration with existing projects	**1**	**2**	**3**			**6**	**7**	**8**	**9**	**10**
	Viability of alternatives for general traffic	**1**		**3**		**5**	**6**				
	Impacts on parking and loading	**1**	**2**	**3**			**6**	**7**		**9**	**10**

1. Target locations for reducing car kms driven and promoting more sustainable modes
2. Target areas of pedestrian severance, lack of direct safe cycle provision and bus delays
3. Target corridors with high traffic volumes and poor air quality

4. Target locations that contribute towards local and national policies and climate change targets
5. Target corridors where safety / accident rates, health and wellbeing can be improved

6. Target where space is available to improve sustainable modes and where modal networks could be optimised
7. Target the biggest network obstacles for people to travel sustainably and build upon projects / proposals already in place creating a connected network
8. Promote networks that are inclusive and accessible for all, particularly in the areas of higher deprivation
9. Target local centres, improving access and sense of Place

10. Reduce severance and protect / enhance the surrounding environment (environment, air quality, heritage, etc.)

4.4.2 Appraisal Scoring

The appraisal of each corridor has been completed using a five-point-scale assessment as outlined in Table 4.3 below. It should be noted that each of the criteria listed in Table 4.3 are given equal weighting through the appraisal process.

Table 4.3: Appraisal Scoring

Corridor Appraisal Criteria	Metrics	Major Negative	Minor Negative	Neutral	Minor Positive	Major Positive
Opportunity to enhance a high street or local centre	Density of shop frontages and key services Street typology defined in Edinburgh's Street Design Guidance	n/a	n/a	No significant opportunity for enhancement	Minor opportunity for improvement in local centre or major opportunity in local centre	Major opportunity for improvement in local centre / High Street location
Opportunity to improve pedestrian accessibility including overcoming severance	Number of crossings per km Width of footways Key desire lines	Major constraints preventing opportunity to improve	Local constraints limit opportunity to improve	No significant opportunity for enhancement or balance of opportunities and constraints.	Minor opportunity to improve pedestrian facilities / low footfall location	Significant opportunity to improve pedestrian facilities in high footfall location
Opportunity to deliver enhanced cycling catering for an important cycle flow	Observed cycle volumes and the propensity to cycle. Proximity and ease to connect to existing cycling infrastructure. Topography	Major constraints preventing opportunity to improve	Local constraints limiting opportunity to improve	No significant opportunity for enhancement or balance of opportunities and constraints.	Good opportunity but modest growth potential or modest opportunity with good growth potential	Significant opportunity and high growth potential
Modest traffic volumes, present opportunity for reallocation of space without wider intervention	Observed traffic volumes on and connecting to the corridor	Over 1000 per hour	750-1000 per hour	500-750 per hour	250-500 per hour	Under 250 per hour
Opportunity to improve public transport journey times by reducing delays / increasing reliability	Observed public transport volumes (bus / passenger) + variation in journey times	n/a	n/a	No bus service / No significant impact	Modest opportunities to reduce delays and reliability taking account of number of buses and priority opportunities	Significant opportunities to address delay and reliability, taking account of number of buses and priority opportunities
Opportunity to reduce transport poverty and inequality	Proximity to SIMD lower percentiles or key amenities	Does not serve SIMD lowest 40%	Does not serve SIMD lowest 20%	No significant benefit	Indirectly serves SIMD lowest 20%	Directly connects SIMD lowest 20%
Opportunity to mitigate negative traffic impacts on air quality	Number of AQMAs and cultural heritage assets on the corridor	Significant potential to worsen	Minor potential to make worse - will require mitigation	No significant impact	Slightly improves	Significantly improves

Corridor Appraisal Criteria	Metrics	Major Negative	Minor Negative	Neutral	Minor Positive	Major Positive
Ability of investment in the corridor to support new development and/or regeneration	Connection to LDP sites	n/a	n/a	Does not serve an LDP site	Indirectly serves a major LDP site or directly serves a moderately sized LDP site	Directly serves a major planned development site
Integration with objectives of existing projects	Existing projects	Corridor proposal is in direct conflict with project objectives	Corridor proposal has a minor conflict with project objectives	No significant impact on project objectives	Corridor proposal aids project objectives	Corridor proposal is fully aligned with project objectives
Impact on general traffic and likely displacement	Capacity of parallel routes	No suitable alternative – major impact likely	Some additional delay or diversion likely	No significant displacement of traffic	N/a	N/a
Impacts on parking and loading	Density of parking and loading on the corridor and adjoining streets	Currently large amounts of on street parking and loading - removal or substitution very challenging	Moderate amounts of parking and loading- removal or substitution challenging. Or large amounts of parking and loading - removal or substitution moderately challenging	No significant parking and loading impact	N/a	N/a