GREATER MANCHESTER
DOING THINGS DIFFERENTLY

BEE NETWORK

Greater Manchester's Streets for All Design Guide

Using the guidance

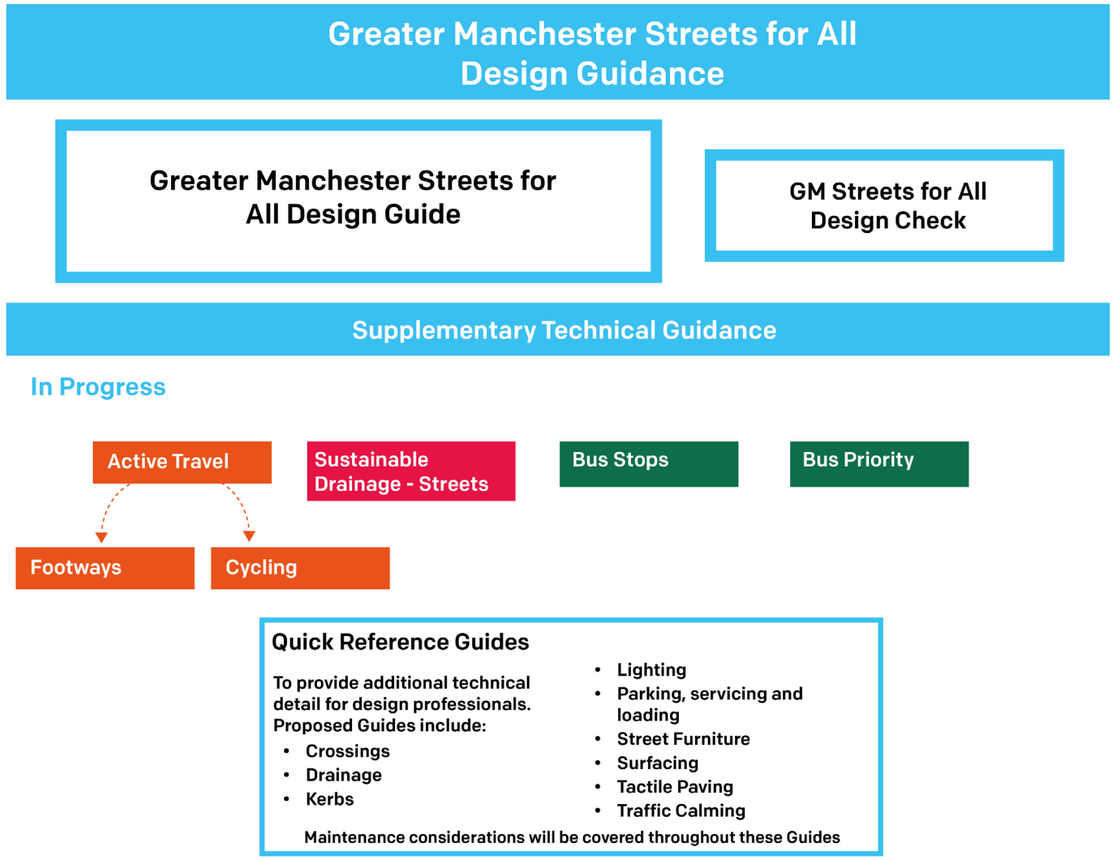


Figure 1.1

Version	Date	Details of amendments
1.1	23/11/2023	First issue as adopted by the Greater Manchester Combined Authority.
1.2	17/06/2025	3.7 Bus Stop diagram superseded by reference to Bus Stop Design Guide. Update to Streets for All Essentials.

This document is subject to periodic review. It is a controlled document which becomes uncontrolled when printed. To access the latest version, visit **tfgm.com/strategy/streets-for-all**

Disclaimer

The guide does not replace existing Local Authority design assurance, audit or related processes. It is for the Local Highway Authority and designer of a scheme to ensure compliance with regulatory requirements, including under the Construction Design Management Regulations and the Equality Act 2010.

Feedback and enquiries

Users of this document are encouraged to raise any queries and / or provide feedback on the content and usage of this document by emailing **gmstreetdesignguide@tfgm.com**

Co-design principles have been applied in the production of the guide, as an essential part of ensuring this is truly a Greater Manchester guide, available for application across all 10 local authorities in Greater Manchester.

Acknowledgements

The Greater Manchester Streets for All design guide has been developed by Transport for Greater Manchester and the 10 Greater Manchester local authorities, and supported by WSP and Mott Macdonald.

Playing an essential part in this achievement has been the Greater Manchester Streets for All Design Guide working groups. Members were drawn from the 10 Greater Manchester local authorities, Greater Manchester Combined Authority, and Transport for Greater Manchester, from a range of disciplines including, highways, drainage, planning, asset maintenance, major projects, active travel, Urban Traffic Control, landscape and urban design.

There has also been wide ranging engagement with equalities groups, and wider stakeholders and groups with an interest in streets and the built environment.

These groups have been invaluable throughout the development of the guide and in providing critical review.

Contents

1. Introduction

Our Streets for All vision

We will ensure that our streets are welcoming, green and safe spaces for all people, enabling more travel by walking, cycling, and using public transport while creating thriving places that support local communities and businesses.

Policy 20 - Greater Manchester Transport Strategy 2040

1.1 Streets For All

Greater Manchester, through the GM Transport Strategy 2040, has made a strong commitment to delivering a transport network which:

- Supports sustainable economic growth and the efficient and effective movement of people and goods.
- Improves the quality of life for all by being integrated, affordable and reliable.
- Protects our environment and supports our target to be net zero carbon by 2038 as well as improving air quality.

Greater Manchester's streets are changing. As part of our ambitious programme of change, we are optimising the use of limited street space to:

- Deliver better and more space for walking, wheeling, and cycling.
- Give more priority for public transport.
- Make our streets better places to live, spend time in, and travel along.

This is essential in achieving the aspirations set out in the GM Transport Strategy 2040 and delivering the Bee Network.

As part of the GM Transport Strategy 2040, the Greater Manchester Streets for All Strategy set out Greater Manchester's new, progressive approach to the way we think about, understand, design and manage our streets and places.

The strategy sets out our Streets for All vision and commitment:

"We will ensure that our streets are welcoming, green and safe spaces for all people, enabling more travel by walking, cycling, and using public transport while creating thriving places that support local communities and businesses."

Policy 20 GM Transport Strategy 2040

Greater Manchester's Streets for All Design Guidance will ensure that when we make changes to our streets, these changes best contribute to realising this vision.

1.2 The ‘All’ in Streets for All

At the heart of Streets for All is an inclusive approach to street design. It recognises that streets are integral to our daily lives, that each of us has different routines, responsibilities and needs, and that these change over our lifetime. By taking account of the many functions, uses, and users of our streets in decisions about their design and development, the Streets for All approach aligns with, and supports, the Vision for Greater Manchester as one of the best places to grow up, get on, and grow old.

The term ‘street’ is used purposefully, and throughout, as opposed to ‘road’ or ‘highway’, to best include the non-transport users and roles of our streets. It also seeks to take into account adjoining uses, as these are key in determining the context of the street. The use of the term ‘street’ does not affect the legal position of roads and highways as defined in legislation or associated statutory duties.

Management of our streets is the responsibility of each of the 10 Greater Manchester local authorities who act as the Local Highway Authority (LHA) in their district. Our streets represent the largest public resource (in both area and monetary terms) so Streets for All seeks to maximise the value we gain from this resource. It does this by recognising our streets are public spaces that do more than just allow people to move from A to B. Our streets are places that allow our collective culture to play out, connecting our communities and supporting their health and wellbeing.

Our streets should work for everyone — from childhood through to old age. They should be:

- Universally accessible, pleasant, safe and welcoming places for anyone and everyone
- An inclusive environment that both reflects, and best facilitates, the particular street’s balance of roles and functions

To achieve this, there is a need to understand potential issues and problems that different people encounter in using our streets, with particular consideration given to groups more likely to be marginalised in society. In this, perceptions and worries that people may have are just as important as problems encountered in the street. Only by understanding these first-hand, can we work to overcome them.

‘All’ means...

All users, residents of, workers in, and visitors to Greater Manchester.

Universal accessibility: our streets should, by design, enable everyone, regardless of age, ability or vehicle availability, to move, to meet and to engage with their local communities.

All uses, and potential uses, of our streets, not only for travel, but as places in their own right.

All modes of travel, in a way that is appropriate to context and function.

Figure 1.2

1.3 Purpose

Greater Manchester's Streets for All Design Guide has been adopted by the Greater Manchester Combined Authority (GMCA) for use in highway, public realm, and other schemes as appropriate.

The Guide sets out:

- The Streets for All approach to designing streets and places
- Design requirements, our overarching standards for street design which we will seek to achieve wherever possible
- Design and infrastructure options for designers to consider

The Guide is for use by everyone involved, or with an interest in, the design of streets and places in Greater Manchester. Its use is a requirement for schemes funded through the GMCA.

The Guide supports delivery of schemes that deliver Streets for All, and the Bee Network, while being:

Buildable — Achievable technically, financially, and with stakeholder and community support.

Adoptable — Meet the technical requirements of the particular LHA as custodian and operator of the public highway.

Maintainable — Ongoing maintenance is fully considered in scheme development, specification and construction e.g. choice of materials,drainage, cleansing.

Value for money — Grounded in the particular context of the street, using context appropriate materials. While there is a place for 'flagship' schemes, and such situations are detailed in the Guide, the emphasis is on measures which use standard materials and features. This means that the principles of the Guide can be applied and realised on more streets, more widely.

The Guide does not call for transformational change in every street. Instead, it details a wide range of potential measures ranging from relatively small scale to improve the street, through to transformational. In this, it should be realised that something as simple as a dropped kerb, properly installed to be fully accessible at side road junctions, may be transformational for someone in terms of enabling independent access to public transport, services and opportunities.

1.4 Scope

The guide is primarily concerned with streets and places in built-up areas. A core principle of the guide is that the public space between property boundaries needs to be considered as a whole. In technical terms, the guide covers the design of the public realm within the bounds of the adopted highway. "Adopted highway" refers to the extent of the street that is the responsibility of the LHA and maintained at public expense. In the case of Greater Manchester, the 10 Local Authorities are distinct LHAs.

The guide is for use in the improvement of existing (retrofit), and the development of new streets and places.

It brings together key technical design parameters and considerations from across a range of sources and considers them within the Greater Manchester context. These include legislation, regulations, standards, guidance and guidelines, latest research, and exemplars of best practice. Given that this information and the needs of users change over time, the Guidance will be subject to regular review and update.

Manual for Streets (2007), and Manual for Streets 2 (2010) together form England's technical guidance for street design. These documents are collectively known as Manual for Streets (MfS). In a clear departure from previous guidance, MfS calls for a people and place focused approach to street design. Guidance prior to this focused mainly on efficient movement of vehicles, and application of a rigid hierarchy of local, collector and distributor roads. MfS instead established a user hierarchy for application in the design of our streets, with needs of pedestrians to be the first consideration in design, and needs of private motor vehicles last.

The other key source of guidance is the Design Manual for Roads and Bridges (DMRB), produced by National Highways and its equivalent bodies in the other UK nations. Although DMRB is often referred to as such, DMRB is not a "standard". It is National Highways contractual "requirement" mandated for use in their schemes.

As MfS sets out, some of the geometric parameters in DMRB, and the road layouts that result, are in most cases, unsuited for complex urban streets and built-up areas. There are however parts of DMRB which should be applied universally, including GG119 - Road Safety Audits, which forms the basis of the GM Road Safety Audit Procedure.

While this guide largely concerns the surface features of the street, it is acknowledged that sub-surface elements and construction make-up will influence the opportunities and constraints on what can reasonably be achieved at the surface. These include:

- Utilities e.g. water and sewage, communications, electricity, gas
- Street drainage
- Form of carriageway and footway construction e.g. historically 'evolved' or modern construction

The guide does not:

- Cover transport service provision
- Cover sub-surface elements or technical design and construction of elements such as footways, cycle tracks or carriageways

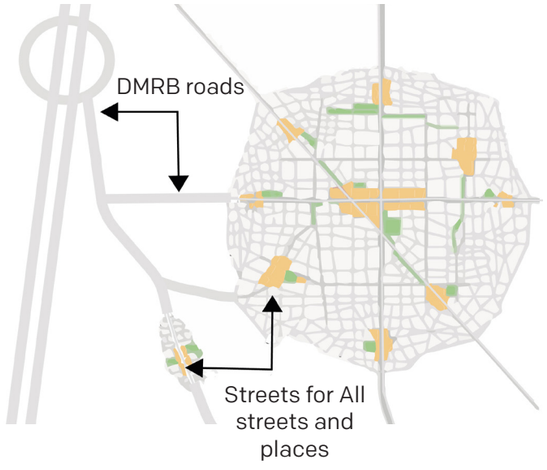


Figure 1.3 Streets for All streets and places

1.5 Application

This guide is for use by people including:

- The 10 Greater Manchester (GM) local authorities, particularly in their role as Local Highway Authority and Local Planning Authority
- Transport for Greater Manchester (TfGM)
- Engineering and design consultants supporting scheme design
- Developers and other land holders and managers
- People involved, or with an interest, in street design

With its focus on inclusive design and universal accessibility, the guide can assist designers and highways authorities in fulfilling their obligations under the Equality Act 2010, including those based on protected characteristics, the public sector equality duty, and the socio-economic duty.

It also reflects the street user hierarchy of responsibility introduced in the 2022 Highway Code "H" regulations, which puts the most vulnerable road users first. This builds upon the common law precedent that all public highway users have a duty of care for each other. While common law establishes a right of movement upon the public highway, case law establishes it as a "public place that may be used for any purpose that does not amount to a public or private nuisance".

The guide does not apply directly to the Strategic Road Network (SRN) which is managed by National Highways. However, it should be taken into account in all locations where the SRN interfaces and impacts on the local street network and local communities. For example at junctions with, crossings of, bridges over, or subways under, the SRN.

The guide does not replace existing local authority and GM design assurance, audit or related processes. It is for the Local Highway Authority and designer of a scheme to ensure compliance with regulatory requirements, including under the Construction Design Management Regulations.

If a scheme interfaces with, or is close to Metrolink infrastructure, there are particular considerations which are beyond the scope of this guide. In such cases, the Metrolink team at TfGM must be contacted at the earliest opportunity.

1.6 Local and national policies and strategies

When considering the design of our streets, there is no shortage of guidance and advice. Not only in relation to transport, produced by transport bodies and organisations, but from a range of other bodies and disciplines.

Transport policies and strategies from national government, and the associated priorities of the administration can change markedly.

At a regional level, the Greater Manchester Transport Strategy 2040 sets out the vision for our transport network. This strategy is, at the time of writing, being updated. Accompanying this are a number of sub-strategies including the Streets for All strategy.

At the local level most local authorities have specific transport plans and strategies, which reflect the diverse geographies of our region. In addition, some local authorities have particular transport plans and strategies for particular modes or areas.

There are a number of cross-cutting wider policies and strategies covering the environment, economy, planning and health that support the delivery of the Streets for All vision.

The remainder of this chapter further explores the complex interplay between legislation, policies, standards and guidance that exists, and that this design guide seeks to bring together, highlight and signpost. It shows the segmented and potentially siloed nature of some of the guidance.

For example, if a designer is designing a cycle scheme, with priority being to ensure compliance with DfT's Cycle Infrastructure Design Guide Local Transport Note 1/20 (LTN 1/20), considerations for walking and wheeling, found in Inclusive Mobility (2021), such as flush kerbs being properly flush, may not be to the fore.

In other cases, old guidance may still be in use, for example use of DB32 for new residential developments.

Transport policies and strategies

National

- Gear change: A bold vision for cycling and walking (2020)
- Bus Back Better: The National Bus Strategy (2021)
- Inclusive Transport Strategy (2020)
- DfT Road Safety Statement Series

Greater Manchester

- Greater Manchester Transport Strategy 2040
- Building the Bee Network (Policy Review)
- Local Authority Transport Strategies
- Greater Manchester Streets for All Strategy
- Refreshing Greater Manchester's Active Travel Mission
- Greater Manchester Bus Strategy
- Vision Zero Strategy

Wider policies and strategies

National

- National Planning Policy Framework
- National Design Guide
- Historic England Streets for All Guidance
- Green Future: Our 25 Year Plan to Improve the Environment
- Levelling-up and Regeneration Bill
- Public Health England Strategy 2020 to 2025

Greater Manchester

- The Greater Manchester Strategy 2021-2031 and supporting strategies
- GM 5-year Environment Plan
- GM Local Nature Recovery Strategy (forthcoming)
- Local Industry Strategy
- Places for Everyone Joint Development Plan Document – Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan
- District Local Plans
- Greater Manchester's Integrated Care Partnership Strategy 2023-2028
- GM Moving in Action 2021-2031

Figure 1.4

1.7 Multidisciplinary interest in street design

Delivering Streets for All requires a multidisciplinary approach. This is reflected in the variety of public bodies, professional bodies and associations which produce various forms of guidance relevant to street design including advice, guidelines, reviews and statements of best practice, journals, case studies and reports. This table is not intended to be exhaustive.

Policy and discipline area	Selected public bodies	Professional bodies and associations
Transport	• Department for Transport • Active Travel England • National Highways • Disabled Persons Transport Advisory Committee • Transport For the north	• Chartered Institute of Highways And Transportation (CIHT) • Institute of Civil Engineers • Transport Planning Society • Logistics UK • Chartered Institute of Logistics And Transport • Institute of Highways Engineers • RAC Foundation
Environmental	• Department of Environment, Food and Rural Affairs • Department of Energy Security and Net Zero • Environment Agency • Natural England • Canal and River Trust • Climate Change Committee	• Chartered Institute of Ecology and Environmental Management • Environmental Services Association
Culture and sport	• Department for Culture, Media and Sport • Sport England • Historic England • Arts Council England	• Chartered Institute for the Management of Sport and Physical Activity
Planning and housing	• Department for Levelling Up and Communities • Homes England • Office for Place • Planning Inspectorate	• Royal Town Planning Institute • National Housebuilding Council • Royal Institute of British Architects • Design Council
Security and civil defence	• Home Office • Police • Fire and Rescue • National Protective Security Authority • National Counter Terrorism Security Office	• College of Policing
Health	• Department of Health and Social Care • UK Health Security Agency • NHS England • National Institute for Health and Care Excellence	• Royal Institute of Public Health

Table 1.1

1.8 Roles and responsibilities in street design

Our vision for our streets, and what they can do for us, extends beyond transport, and many wider policies and strategies are interwoven with the transport and transport bodies. The most direct and obvious of these include examples related to housing, planning and development, explored further and alongside transport in Table 1.1. This table is not intended to be exhaustive.

	Key responsibilities in relation to layout, design and delivery of streets in Greater Manchester	
	Local Highway Authority	**Local Planning Authority**
Examples of statutory duties	• Duty to maintain local highways • Duty to facilitate the expeditious movement of traffic, including pedestrians and cyclists • Duty to manage road safety	• Develop and apply Local Plan policy • Assess and determine planning applications.
Examples of legislation	• Highways Act (1980) • Traffic Sign and Regulations and General Directions (2016) • Traffic Management Act (2004) • Road Traffic Regulation Act (1984) • Road Traffic Act (1988) • Equality Act (2010)	• Planning and Compulsory Purchase Act (2004) • Town and Country Planning Act (1990) • Town and Country Planning Regulations (2012)
Guidance	Manual for Streets • To assist in the layout of streets. Design Manual for Roads and Bridges • A requirement for National Highways SRN • British Standards • Local Transport Notes (LTN) • Other guidance (e.g. Well-managed Highway Infrastructure (2016))	• National Planning Policy Framework • Planning Practice Guidance
Local and GM plans, policies and guidance	• Local Transport Plans and Strategies • (TfGM + Local Highway Authority)	• Local Planning Authority Local Plans
	• Local Supplementary Planning Documents • Other material considerations	
	• Greater Manchester Strategy • Places for Everyone - 9 GM Boroughs Joint Development Plan Document • Greater Manchester Streets for All Design Guidance • GM Vision Zero Strategy	

Table 1.2

1.9 Core references

Table 1.2 below lists the core references informing this guide and design requirements. The guide has also been informed by a wide range of multidisciplinary guidance, extending beyond the field of traffic and transportation planning and engineering. A full list of references can be found in Appendix A.5. The core references which underpin the guide will be subject to periodic review and update.

National standards and regulations	National guidance	Summary	Published by
BS8300:1 (2018) **Design of an inclusive and accessible built environment: external environments**		This British Standard explains how the external built environment, including streets, parks, landscaped areas, the approach to a building, and the spaces between and around buildings, can be designed, built and managed to achieve an inclusive environment.	British Standards Institute
	Inclusive Mobility (2021) **A guide to best practice on access to pedestrian and transport infrastructure**	Latest guidance on designing and improving the accessibility and inclusivity of public transport and pedestrian infrastructure.	DfT
	LTN 1/20 Cycle Infrastructure Design (2020)	Guidance on designing high-quality, safe cycle infrastructure.	DfT
	Manual for streets (1, 2, and 3 forthcoming)	'Manual for Streets' explains how to design, construct, adopt and maintain new and existing residential streets.	DfT/ CIHT
Traffic Signs, Regulations and General Directions (2016)	**Traffic Signs Manual**	The Traffic Signs Manual gives guidance on the use of traffic signs and road markings prescribed by the Traffic Signs Regulations.	Parliament
	Streets and the Urban Environment Series	• Creating better streets: Inclusive and accessible places (2018) • Buses in Urban Developments (2018) • Designing for Walking (2015)	CIHT
	Code of Practice	• Well-managed highway infrastructure (2016)	CIHT

Table 1.3

2. Streets for All approach

2.1 Introduction: Streets for All approach

As well as enabling us to travel about, Greater Manchester's streets are also a valuable part of our public realm. The total area of adopted highway in the city region is almost double that of public parks and gardens across the region.

Every day, from the moment we leave our front door, we all use our streets in different ways. They are not only used for travelling along or parking on, but are spaces for living, learning, working, relaxing, playing, socialising and exercising. People come together in our streets and places, and good streets can be a place of community and connection. Streets support and connect everyone of us, every day, with opportunities, services and each other. Greener streets have huge potential to better connect us to nature and at the same time create more wildlife friendly corridors for nature across the city-region.

The quality of our urban environment has long lasting, and far reaching, effects on people's lives and our communities. Streets have a degree of permanence which exceeds most other things in our villages, towns and cities. The legacy of street design decisions we make today can have implications that last for generations, and even centuries. This highlights the importance of getting street design right from the outset, and the choices we make when making changes to our streets.

Achieving Streets for All requires us to change the way we think about our streets, what they are, what they could be, what they do and what they could do for us. The Greater Manchester Streets for All Design Guidance reflects this need.

At the heart of the Streets for All approach are the principles of people-centred and context-sensitive design.

To better enable us to deliver streets that work for everyone, we need to understand the issues, problems and concerns that people face in using our streets. In developing the guide, we have engaged with a wide range of stakeholders and representative groups, who have shared their lived experiences and powerful testimonies, parts of which are included in this chapter.

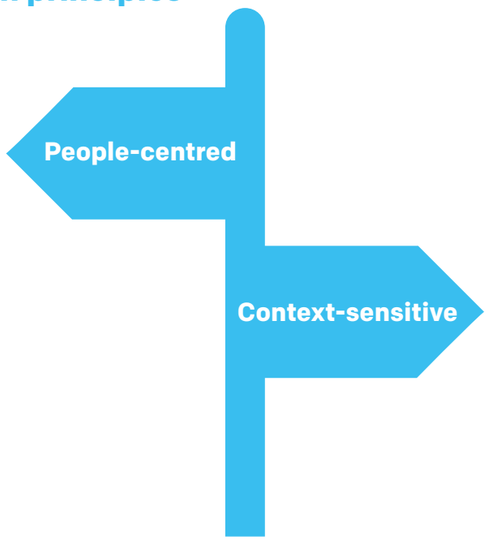
In taking into account all uses and users of our street, the guide takes the needs of drivers and people who travel by car into account.

The guide recognises that motor vehicles will continue to play an important role in society, for both movement of people and goods.

The role our streets play in providing for motorised vehicles is crucial, however this needs to be better balanced with the needs of people walking, wheeling and cycling, and all the other things our streets can support, and do, for us.

Figure 2.1

Streets for All design principles



Streets for All essentials

Figure 2.2

2.2 Why people-centred design matters

All users and uses

Our streets have, over the past century, become increasingly unbalanced in their layout and use. In this process, some uses and users of our streets have become marginalised, for example use of neighbourhood streets as places to play.

The Streets for All approach seeks to balance our streets between different users and uses. With only a fixed amount of street space and many competing calls upon it, we need to optimise the use of our street space and allocate it in the most efficient way. This means looking at the layout of our streets and the use of space within them, for example reallocation of space to public transport through bus lanes and other bus priority measures, or to cycling in the form of protected links and junctions. It also means looking at allocation of time, for example at pedestrian crossings and traffic signals.

As well as striking a better balance between people driving, parking, cycling, walking, wheeling or taking public transport, there is also a need to consider space for the other functions a street can provide, related to the type of place the street is. This means space for things which make our streets better places to both pass through and spend time in. We need to make our streets more welcoming places for everybody, for example by greening our streets, providing space for people to sit, relax and play.

Inclusive design and universal accessibility

Inclusive design requires designers to consider and understand the needs and perspectives of different users and uses of our streets, and how a street might work, not work, or could work better for them. It seeks to minimise barriers or issues different people may face in using our streets. The objective of inclusive design is that, to the fullest extent possible, no one should be excluded from using our streets.

It recognises, in providing this, some of the asks may not be totally compatible with each other. In recognising this, it seeks to achieve the optimal accommodation, or balance, in the particular circumstances. The approach involves compromise to arrive at solutions in a particular location, street or context.

A universally accessible street is one which has features which have been designed and — crucially —constructed, such that people with a diverse range of capabilities and abilities can use it. It focuses mainly on removing, or reducing issues and problems that disabled people may face when using our streets.

Inclusive design looks to consider all forms of human diversity, and differing perspectives, to create streets which work for people regardless of ability, age and socio-economic circumstances. In doing so, it has considerations of accessibility at its core.

A street that is not accessible cannot be considered inclusive.

Inclusive footways

A street cannot be considered inclusive if the footway is too narrow. It could be that the footway was built too narrow, or overgrown hedges and verges, poorly placed street furniture and pavement parking reduce the available width.

Katy, who uses a wheelchair, told us how pavement parking affects her:

"You can't just go around the car and immediately get back up onto the kerb. I have to carry on to find a dropped kerb, which can lead to moving along a busy road for long periods of time. It's frightening."

Ben, who is visually impaired, is particularly impacted by obstacles he finds on footways:

"A-boards, bollards, signs, posts, e-scooters and trees cluttering pavements can make my journeys uneasy and stressful."

For a route to be accessible, it also needs to be step-free, level and without barriers. Margaret, who uses a rollator, told us:

"When I go somewhere new, I usually have to go out of my way up side roads to find a dropped kerb to cross, and then come back and carry on."

For Katy, who uses a wheelchair, constant changes in pavement level are problematic:

"Pavements need to be level. It's a problem when there is a steep drop in the pavement at a drive."

Lack of crossings can prevent people from walking and wheeling. Where there is a pedestrian crossing with traffic lights, there may not be enough time to cross. 1.2 metres per second is the speed usually used for pedestrian crossing timings, but 75% of men over 65 and 85% of women over 65 walk more slowly. Some young children move even more slowly[1].

1. Living Streets crossings policy

Concerns about the risk of slips and falls can stop people from leaving their home, which can lead to social isolation and poor physical and mental health. 31% of adults aged 65+ said they avoid walking more or at all on their local streets because of cracked and uneven pavements[2].

Dennis found the poor condition of footways made it impossible to catch the bus:

"Poor pavements are a major issue. Getting to the bus stop was impossible in my old manual wheelchair."

For neurodivergent people, streets that are confusing or visually chaotic can be overwhelming and disorienting places[3]. This can include changes in paving materials, patterns and non-standard crossings. Rachel told us:

"Things that look nice are great but not at the expense of what people expect."

For Ben, who is visually impaired, legibility of street layout and tonal contrast is important:

"If bollards are installed in the middle and are the same colour as the pavement, they can blend in with the streetscape and environment and become hazards."

2. Living Streets research potholes in pavements leaving over 65s stuck indoors
3. Large, L (2023) Autism in the City - Sensing Places. Urban Design Group Journal. Winter 2023. Issue 165

Inclusive cycling

One of the most common reasons people give for not cycling is their fear of traffic[4]. When asked what would encourage them to cycle more, people cite protected and continuous cycle routes, less and slower traffic. These routes need to accommodate larger non-standard cycles and cargo bikes.

Availability of secure cycle parking that accommodates larger non-standard cycles is also a factor.

Off-road paths are an important part of our walking and cycling network, however in many locations access to these is restricted by barriers which aim to deter antisocial behaviour. These barriers are not always effective in this aim, but they do prevent some people from using these routes legitimately.

Access by car or taxi

Private cars and taxis play, and will continue to play, an important role in society, for both movement of people and goods. For some people with reduced mobility, cars or taxis are an indispensable mobility aid. For example, some disabled people or Blue Badge holders, not being able to access — or in some cases park — close to their home or destination can mean they are not able to access it at all.

Safer streets

Greater Manchester is committed to tackling road danger. At the time of writing, GM is developing a Vision Zero strategy with the aim of eliminating all traffic fatalities and severe injuries caused by road collisions. It is based on Safe System principles of which safe roads, safe speeds, and safe road use are most relevant to street design.

The way we think about street safety has changed. In some situations, measures implemented in the past in the interest of road safety have had an adverse impact on how people experience a street and their perceptions of personal safety. For example, for example a long stretch of pedestrian guardrail could narrow the footway enough to exclude some people, or may create a feeling of entrapment.

Perception of personal safety has a significant impact on how and when people choose to use our streets. It particularly affects certain groups in society, for example one in three people who identify as LGBTQ+ reported avoiding certain streets which they perceive as unsafe because they felt they could be targeted for harassment, rising to 44% for trans people[5].

Women routinely feel less safe on streets than men, with 71% of women having experienced harassment in public spaces[6].

The 'Free to Be' campaign found that lighting was the most important built environment design factor in influencing people's perceptions of the safety of streets and public spaces at night[7].

The ability to escape easily from a threatening situation is particularly important to women and girls in deciding whether a street or public space feels safe[8]. Places with good visibility and clear sight-lines can help people feel safer, especially after dark.

The presence of other people can make our streets feel safer. By making our streets more attractive to walk, wheel and cycle, this increases the number of 'eyes on the street' and helps us feel safer and more welcome.

Inclusive places to spend time

Places to sit and rest are an important part of an inclusive street. A survey of people with a mobility impairment, who were able to walk at all, found that over 30% were unable to walk for more than 50 metres without stopping[9].

A study by the University of Sheffield[10] found that sitting on benches allows people to spend longer outside, which is beneficial for mental health and connects them with others in their community. Benches function as a social resource - they are flexible and affordable places to spend time at no cost.

When asked, children consistently identify residential streets as being important places to play, for the simple reason that they are close to home and to the homes of their friends.

Both parked cars and traffic impact on the use children can make of a street[11].

Designated spaces are not sufficient to meet all children's play needs, whereas streets can provide "patches of randomness..."[12] that both children and young people can use.

Green spaces of any size can have a restorative effect on people. Notably they can provide a place for neurodivergent people to retreat to recover from sensory overload. Rachel told us:

"People with ADHD focus better and feel calmer if they have trees and greenery on their doorstep. Everyone experiences these benefits, but the effect is stronger and longer lasting for people with ADHD. It helps calm anxiety too."

4. Greater Manchester walking and cycling index 2021
5. LGBT in Britain - Hate crime and discrimination research by Stonewall
6. 2021 UN Women UK YouGov survey
7. Perceptions of Night-Time Safety: Women and Girls research by Arup
8. Making parks safe for women and girls research by West Yorkshire Combined Authority.
9. Follow-up study to the London Area Travel Survey. Inclusive Mobility (2021).
10. University of Sheffield Lighting Research Group
11. Wales-a play friendly country report by Welsh Government.
12. Barclay, M and Tawil, B. (2020) Play sufficiency and Neighbourhood design. Urban Design Journal. Issue 156

2.3 Context-sensitive design

The Streets for All Approach calls upon designers to consider, reflect and celebrate the diversity of places and people in Greater Manchester, through application of context-sensitive street design.

It is an approach that recognises the complexities of scheme development and delivery in a space-constrained and complex urban environment. Understanding the particular context of a street can help inform design decisions, including balancing the competing demands on scarce street space.

Designers should develop an understanding of different aspects of the particular context, and their relationship to one another. While recognising every street is unique, these contextual considerations may include:

- The physical form of a street or place
- Its history
- The people who live, work, visit, play or spend time there
- Uses, including transportation
- Character
- How these change over the length of the street or across the locality

Context sensitive street design asks designers to consider the space between buildings (the cross section) and how people experience this as a whole.

Visiting the street is crucial to gain a first-hand understanding of the place and how people and vehicles use and move through it. It is also important to consider how this may change day to night, throughout the week and by season or special event.

2.4 Greater Manchester street types

A common way of structuring considerations of street context is though definition of street types.

Traditionally, these were a motor traffic focused definition of road hierarchy. The Greater Manchester Street Typology provides designers with a flexible way approaching context-sensitive design. These are:

- Neighbourhoods
- Connector Streets
- High Streets
- Destination Places
- Strategic Roads

Greater Manchester Street Types

NEIGHBOURHOODS

Most of our streets are Neighbourhood streets. They give access to our homes and link up with public transport and community facilities like schools and local shops. Walking and cycling should be the natural choice for these shorter local journeys. Making our Neighbourhoods greener and healthier, with reduced motor traffic, is good for everyone.

CONNECTOR STREETS

Connector Streets are part of, and join up, our Neighbourhoods. They also connect our town and city centres. They form the backbone of our bus network and are often the most direct routes for walking, wheeling, cycling and other traffic. Balancing their different roles can make them better places to both pass through and spend time in.

HIGH STREETS

High Streets are at the heart of our communities and are important places for shopping, leisure and work. Walking, wheeling, cycling and public transport connections are important to their success, as well as access by cars and deliveries. They should be enjoyable places to spend time in.

DESTINATION PLACES & GATEWAYS

Destination Places and Gateways come in many shapes and sizes, such as a market square, a park, or the route to a large venue or station. They are places where people come together or pass through. They should be safe and pleasant places to be in by day and night. They should be places to dwell.

STRATEGIC ROADS

Our Strategic Roads carry large volumes of motor traffic, and are crucial to the movement of goods and the economy. They should be cleaner, greener and easier to cross to reduce impacts on local communities. Junctions should be easy, safe and more pleasant to cross for people walking, wheeling or cycling.

Figure 2.3

2.5 Greater Manchester street types and sub-types

This table sets out the Greater Manchester street types and sub-types. The sub-types have been developed to allow greater exploration of different streets and contexts across the region.

They form the framework of Chapter 5 which explores applying the Streets for All approach to these sub-types.

The street types should not be rigidly applied and are **not templates for design**.

There may be a mix of street types along the length of a street, or a street may have components of different street types.

Street type	Sub-type	Typical posted speed (mph)	Typical motor traffic volume*	Typical cross section	Defining Features	Design Principles
Neighbourhoods		20mph, laid out to encourage very low speeds	**Low**	1.5m-12m	• Where we live. • Largely residential, across a range of densities e.g. terrace street, apartment blocks, detached suburban properties. • Walking and cycling should be the natural choice for shorter journeys within and between Neighbourhoods. • Support and provide access to a range of services and activities for people of all ages and abilities. • Local buses provide access around and between neighbourhoods.	• Manual for Streets 1 and 2
Connector Streets	Local Connector Street	20 /30mph	**Moderate**	10m-15m	• Largely residential. • Part of the Neighbourhoods they pass through. • Parking is generally uncontrolled.	• Manual for Streets 1 and 2 • CIHT Buses in Urban Developments
	Connector Streets	30mph	**Moderate to High in peak periods**	12m-20m	• A mixture of residential and other uses. • Parking is generally controlled.	• Manual for Streets 2 • CIHT Buses in Urban Developments
	Multi-Lane Connector Street	30 / 40mph	**High**	20-40m	• A mixture of residential and other uses that can vary significantly along their length. • Key radial routes from city and town centres. • They form the backbone of the bus network with frequent services supported by bus lanes.	• Manual for Streets 2 • CIHT Buses in Urban Developments • DMRB (if high volume of HGV's or >40mph posted speed)
High Streets	High Streets	20mph	**Low**	10m-20m	• Mixture of retail, commercial, hospitality and residential. • Support and provide access to a range of services and activities for people of all ages and abilities. • Walking, wheeling, cycling and public transport connections are important to their success as well as access by cars and deliveries. • A place to travel to, rather than drive through.	• Manual for Streets 1
	High Roads	30mph	**High**	12-25m	• Mixture of retail, commercial, hospitality and residential. • Support and provide access to a range of services and activities for people of all ages and abilities. • Multiple traffic lanes with high volumes of traffic driving through.	• Manual for Streets 1 and 2 • CIHT Buses in Urban Developments
	Pedestrian High Street	Not applicable	**Restricted hours e.g. servicing**	10-20m	• Mixture of retail, commercial, hospitality and residential. • Support and provide access to a range of services and activities for people of all ages and abilities. • Vehicle access restrictions. • Important spaces for a range of activities and public life.	• Manual for Streets 2 • CIHT Buses in Urban Developments
Destination Places and Gateways		Not applicable	**Context sensitive**	Context sensitive	• Places that large numbers of people congregate or pass through. • Important spaces for a range of activities and public life. • Vehicle access restrictions.	• Manual for Streets 1 and 2
Strategic Roads		30mph - 70mph	**Very High**	20m-100m+	• National Highways SRN.	• DMRB • Consider Manual for Streets at junctions with local roads

Table 2.1

2.6 Streets for All Essentials

In making changes to our streets, we will apply our integrated approach centred around seven essentials, which together encompass different users and uses of our streets. By applying these essentials to street design, our streets will be welcoming and safe spaces for everyone, enabling more travel by walking, wheeling, cycling and public transport, while creating better places that support local communities and businesses.

The Streets for All Essentials are then taken forward in framing Chapter 4: Street design options, where we explore potential design interventions that might be applied, which contribute to, and align with the seven essentials.

Figure 2.4

3. Streets for All design requirements

3.1 Introduction: Streets for All design requirements

This chapter brings together the key Streets for All design requirements for walking, wheeling, cycling, bus and motor vehicles. These requirements are central to delivering universally accessible streets.

The Streets for All Design Check is a tool to assess street schemes against the design principles and requirements set out in Streets for All Guidance.

It applies to:

- Existing streets.
- Proposed changes to streets.
- Design of new streets.

Further detail on this, and other key aspects of delivering Streets for All can be found in Appendix A.

Many of the design requirements in Chapter 3 relate to critical metrics in the Streets for All Design Check. The absence of an element from this chapter does not indicate that it shouldn't be considered in developing design options.

Table	Title	Content
Table 3.2	Walking, wheeling and cycling along and across a street.	Side road crossings, mid-link crossings, type of cycling facility.
Table 3.3	Width requirement for footways - improving existing streets.	Desirable minimum and absolute minimum widths for footways in Neighbourhoods, Connector Streets and High Streets.
Table 3.4	Width requirement for footways - new street construction.	Desirable minimum and absolute minimum widths for footways in Neighbourhoods, Connector Streets and High Streets.
Table 3.5	Width requirements for cycle facilities.	Width requirements of cycle facilities including additional widths needed for buffers.
Table 3.6	Bus requirements.	Sets out requirements for bus across different street types.
Table 3.7	Carriageway width considerations for Neighbourhood streets.	What can be accommodated across different carriageway widths in Neighbourhood streets.
Table 3.8	Side road junction crossings and radii considerations for Neighbourhood streets.	Design considerations for side road junctions in Neighbourhood streets and Neighbourhood gateways.

Table 3.1

Streets for All Design requirements — key considerations

- Minimum should be achieved, or exceeded, where possible. They are minimums, not targets.
- Absolute minimum should only be used where there is a constraint, such as the available width in the street cross section.
- The information in Chapter 3 should be used in conjunction with the latest version of the Streets for All Design Check.
- A road safety audit process should be applied for all Highways schemes.

Design consideration transport user hierarchy

It is recommended that the design of a scheme should follow the user hierarchy, with people walking and wheeling considered first in the design process.

This hierarchy should be applied in a context-sensitive way (e.g. goods vehicles are not generally a consideration in neighbourhood streets, but access for specialist service vehicles such as refuse vehicles are).

Also, it does not necessarily mean that it is always more important to provide for pedestrians than it is for other modes (MfS). However, by considering pedestrians first, the design is more likely to achieve a better balance between users and uses.

The hierarchy of road users set out in the Highway Code (see Appendix A) should also be considered in the design process. This is based on the principle that those who can cause the greatest harm have the greatest responsibility to reduce the risk they pose to others.

Figure 3.1

3.2 Design requirements for walking, wheeling and cycling along and across a street

Street type	Sub-type	Typical posted speed (mph)	Typical motor traffic volume*	All crossings	Side road crossings	Mid link crossings		Type of cycling facility	
Neighbourhoods		20mph, laid out to encourage very low speeds	**Low**	**Dropped kerbs at crossings** • Flush with road; maximum 6mm tolerance. No ponding. **Gradient on approach** • 1 in 20 preferred max; 1 in 12 absolute max. **Uncontrolled crossings** • Flush portion – 1.2m minimum; 3m with heavy pedestrian flows, or wide footways. (See TSM Ch6 for controlled crossings). • Tactile paving must be provided in line with DfT guidelines, wherever cycle or motor traffic may be encountered. This includes raised crossing locations where footway material carries through (continuous footway crossings. For uncontrolled crossings the main consideration is tonal contrast with the surrounding surface. (E.g. buff tactile surface must not be used immediately adjacent to buff paving). **Controlled crossings** • To be provided on all junction arms. • Tactile surface must be red. • At raised crossings, the tactile should extend the full width of the flush carriageway / footway interface.	Small radius, Raised crossing	Opportunities to cross away from formal facilities Uncontrolled crossing points		Share carriageway, mixed traffic	
Connector Streets	Local Connector Street	20 /30mph	**Moderate**			Opportunities to cross away from formal facilities Uncontrolled crossing points Zebra crossing		Share carriageway, mixed traffic, or protected lanes, dependent on traffic flows	
	Connector Streets	30mph	**Moderate**		Larger radius, Dropped flush kerb	Zebra crossing Signalised: Puffin / Sparrow		Protected e.g. stepped, or parallel route provided	
	Multi-Lane Connector Street	30 / 40mph	**High**			Signalised: Puffin / Sparrow		Protected e.g. kerbed, or parallel route provided	
High Streets	High Streets	20mph	**Low**		Context sensitive design	Opportunities to cross away from formal facilities		Share carriageway, mixed traffic	
	High Roads	30mph	**Moderate to High**			Signalised: Puffin / Sparrow		Protected / Parallel route	
	Pedestrian High Street	Not applicable	**Low** (restricted hours servicing)			Not applicable		None, cycle track	

*For further detail on appropriate cycle facilities for different traffic volumes, refer to LTN 1/20

Table 3.2

3.3 Width requirements for footways - improving existing streets

		A	B	C
		Minimum	Absolute minimum (by exception)	Absolute minimum (by exception) at point obstruction <6m max length
		Maintained minimum unobstructed width		
Neighbourhoods	Neighbourhood Streets	**2m**	1.5m	(1.2m*)
Connector Streets	Local Connector Street	**2m**		
	Connector Street	**2.5m**	2m	
	Multi-lane Connector Street	**3m**		
High Streets	Pedestrianised High Street	**3m+**		
	High Street	**2.5m**		
	High Road	**3m**		
Destination Places and Gateways		**3m+**		

Options to provide additional width should be rigorously investigated and exhausted before the use of widths in columns B and C is proposed. A footway with a minimum kerb upstand 60mm to ensures the level difference is detectable by a blind or partially sighted person.

The guiding principle is that footways should be as wide as practicable, taking account of context, current and future demand, and observed behaviour. Footways should be designed to operate comfortably during the busiest hour.

Table 3.3

***Minimum width requirement at point obstruction**

The absolute minimum width in column C if for use in exceptional circumstances only, over very short distances (max 6 metres), where these relate to existing localised constraints. A width less than this will exclude some users (see Appendix A.2).

Where new infrastructure is being introduced (e.g. utility cabinets, EV charging facilities, benches, bus shelters, cycle parking or shared mobility etc.) these must be located so the minimum unobstructed width in column A is maintained.

In new street construction, point obstructions should be designed-out at the first opportunity.

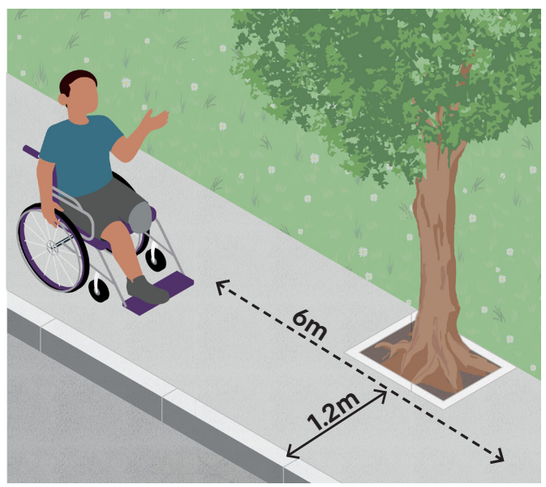


Figure 3.2

3.4 Width requirements for footways - new street construction

	Minimum width	Absolute minimum width	Absolute minimum around a point obstruction <6m max length
Neighbourhood Streets	**2.5m**	2m	Not applicable
Local Connector Street	**2.5m**	2m	Not applicable
Connector Street	**2.5m**	2.5m	Not applicable
Multi-lane Connector Street	**3m**	2m	Not applicable

In new residential areas, shared space may be appropriate to provide access to a small number of properties where there is no through motor vehicle traffic. In all other circumstances, a footway with minimum kerb upstand of 60mm should be provided to ensure it is detectable by a blind or partially sighted person.

Table 3.4

In addition to providing space for walking and wheeling, it is critically important to think about how people will move through the space, particularly at junctions, crossings and bus stops, where there will be street furniture that people have to manoeuvre around. This is further complicated by level differences that must also be taken into account to ensure the street is universally accessible. **Details matter.**

Space to stay and play

For our street to function as a social space, footways need to be wide enough for people to pause for a chat, browse or play. The typical additional width above the minimum footway width for through movement is shown in the adjacent diagram. 2.5m is the recommended additional width to stop and chat or socialise, with 4m as space to play.

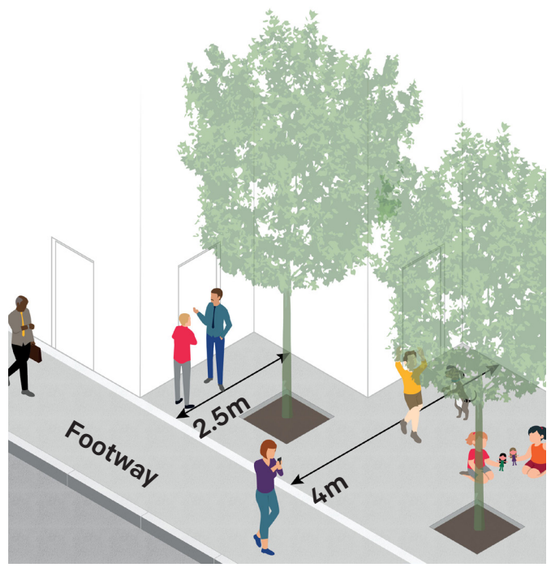


Figure 3.3

3.5 Width requirements for cycle facilities

The diagram below shows the width required for cycling facilities, with information sourced from LTN 1/20.

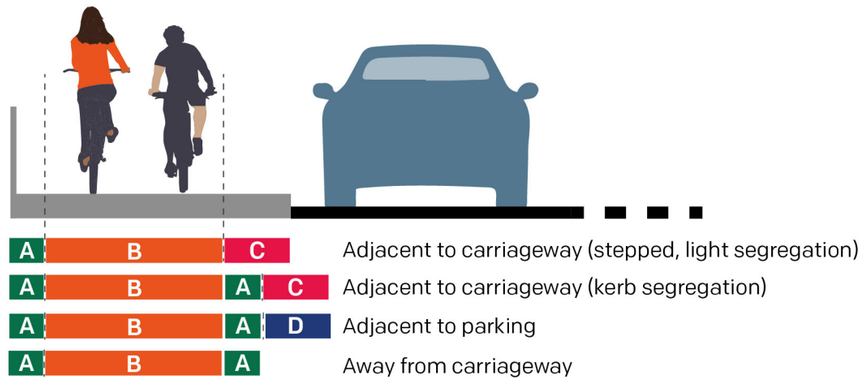
It shows the minimum and absolute minimum widths for different situations and cycle flows (column B).

Additional track width may be required for certain edge conditions (column A). With kerbs above 60mm there is a risk of the pedal striking the kerb, so additional width is required. The additional width required increases for vertical features above 150mm. This may apply on either or both sides of the cycle zone.

For cycle tracks adjacent to carriageway, an additional buffer zone may be required (column C). For tracks adjacent to parking, an additional buffer zone is required (column D).

In selecting the cycle flow, consideration should be given to expected growth in the number of people choosing to cycle.

The absolute minimum figures are for exceptional use in case of physical constraints on existing roads.



Source: LTN 1/20 Cycle Infrastructure Design

A Additional width for edging & upstands	ADDITIONAL WIDTH REQUIRED
Kerb up to 60mm 15 splay / HB flat 30 splay 45 splay half battered set low bullnose set low	**0.00m**
Kerb 61-150mm 45 splay half battered set low bullnose set low	**0.20m**
Vertical feature 151-600mm	**0.25m**
Vertical feature 600mm +	**0.50m**

B Width of cycling zone	MINIMUM (ABSOLUTE MIN)
<200 cycles in busiest hour	**2.00m** (1.50m)
200-800 cycles in busiest hour	**2.20m** (2.00m)
>800 cycles in busiest hour	**2.50m** (2.00m)
2-way <300 cycles in busiest hour	**3.00m** (2.00m)
2-way 300-1000 cycles in hour	**3.00m** (2.50m)
2-way >1000 cycles in busiest hour	**4.00m** (3.00m)
Cycle lane	**2.00m** (1.50m)

C Width of buffer to motor traffic	MINIMUM (ABSOLUTE MIN)
20mph	**Share carriageway, cyclist in primary position**
30mph	**0.50m** (0.00m)
40mph	**1.00m** (0.50m)
50mph	**2.00m** (1.5m)
60mph	**2.5m** (2.00m)
70mph	**3.5m** (3.00m)

Where absolute minimum buffer cannot be provided, consider use of Vehicle Restraint System.

D Width of buffer to parking	MINIMUM WIDTH
Parking bay buffer	**0.5m**
Accessible parking bay buffer	**1.5m**

Table 3.5

3.6 Bus requirements

Table 3.5 sets out a number of bus priority options across the GM street types. The absence of an element from this Chapter does not indicate that it shouldn't be considered for use in developing design options. This table is not exhaustive.

Width of bus lanes and nearside general traffic lanes on bus routes

All bus lanes and nearside traffic lanes on bus routes should have a width of 3.25m on straights (wider on bends / curves dependent upon the radius). This applies to all street types. Where space exists, bus lanes should be at least 4m wide, and preferably 4.5m, to enable buses to pass cyclists with sufficient room. If there are potential options under consideration as part of any scheme which could involve the following, it is recommended that they are brought forward for discussion with the TfGM Bus Team at the earliest opportunity:

- Could involve introduction of a section of a bus lane, or nearside traffic lane on a bus route, of less than 3.25m;
- Has existing lane widths of less than 3.25m; or
- Where there is no centreline, the kerb-to-kerb width is less than 6.5m;

Any relaxation from 3.25m will be based on careful consideration of the scheme, its objectives, and unique particular context of the street(s), route and/or road corridor in question.

This 3.25m width requirement is based upon analysis undertaken by TfGM in conjunction with GM Bus Operators. These considerations may include:

- Context – and how this differs along the route
- Footway width and activity
- Provisions for cycling
- Number of buses per hour
- Volume of traffic / composition of traffic
- Centreline and lane markings
- Horizontal alignment (bends or straight)
- Swept path analysis (tracking)
- Hours of operation e.g. peak direction bus lane
- Consideration of the overarching objectives for a particular stretch of road, route, corridor and scheme
- Implications for bus operators
- Localised bus route risk assessment(s)
- On-site bus test(s)

Traffic calming on bus routes

Raised table crossings or junctions on bus routes must be 'bus friendly':

- 6m long flat top
- Height of up to 75mm
- Exit and entry ramps 1 in 15 maximum gradient

3.7 Bus stops

Bus stops, shelters and footways should be universally accessible for waiting, boarding and alighting (including space for ramp deployment for wheelchair users), and walking and wheeling by, with boarding points clearly defined.

For details on bus stop layouts, including shelter configurations, please refer to the GM Bus Stop Design Guide.

Street type	Sub-type	Type of facility
Neighbourhoods	Neighbourhood Streets	• Bus gate • Junction protection using Traffic Regulation Orders
Connector Streets	Local Connector Street	• Bus gate • Bus priority at signalised junctions e.g. bus SCOOT
	Connector Street	• Bus only movements at junctions • Bus priority at signalised junctions e.g. Bus SCOOT
	Multi-Lane Connector Street	• Bus lanes • Bus advance areas at signals • Queue relocation • Banned Turn exceptions • Bus priority at signalised junctions e.g. Bus SCOOT • Red Route
High Streets	High Street	• Bus gate/ Bus only street • Access restrictions • Banned turn exceptions • Bus priority at signalised junctions e.g. Bus SCOOT
	High Road	• Bus lanes • Bus advance areas at signals • Queue relocation • Banned turn exceptions • Bus priority at signalised junctions e.g. Bus SCOOT

Table 3.6

3.8 Side road junction crossings and radii considerations for Neighbourhood streets

One of the most important considerations in how people walking, wheeling, cycling, and vehicles interact is at side road crossings. This table explores the implications of corner radii on different users — pedestrians, cyclists and drivers. Tighter corner radii are a particular benefit to blind, partially sighted and elderly people, who must be given due regard in decision making. It sets out what radii might be suitable in relation to design speed, actual speed of cornering, and context.

This is particularly applicable to neighbourhood gateways and the streets within Neighbourhoods.

It is recognised that there are certain circumstances where tight radii should not be used e.g. bus routes, or where there are a significant number of HGVs.

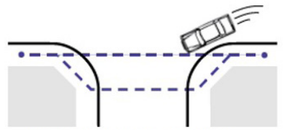
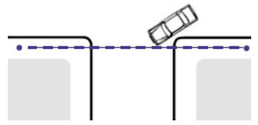
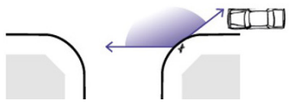
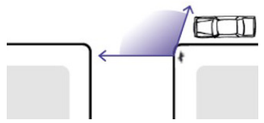
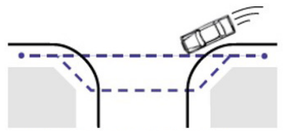
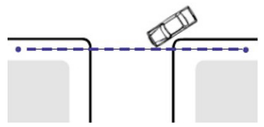
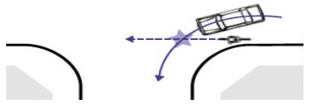
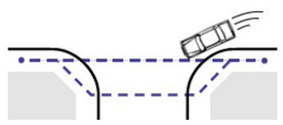
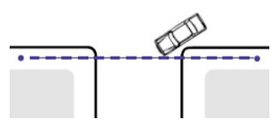
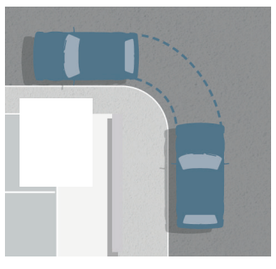
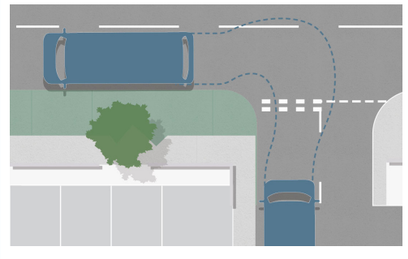
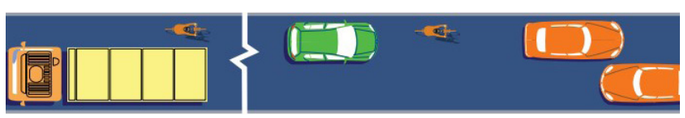
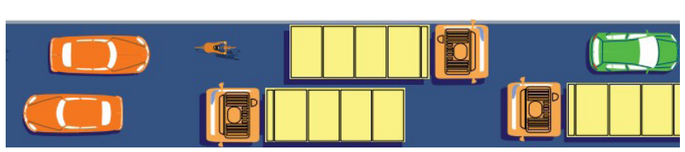
		Diagram/ image	Description	Image	Description	Design Consideration
Corner radii	Impact on pedestrians		• Larger radii mean pedestrians have to make a longer crossing or deviate from their desire line		• Smaller corner radii means pedestrian desire line is maintained	30mph - 30mph 2-6m 30mph - 20mph 0-3m 20mph - 20mph 0-3m
			• Larger radii mean pedestrians have to look further behind to check for fast turning vehicles		• Smaller corner radii mean pedestrians don't have to look as far behind to check for turning vehicles	
			• Pedestrians cannot normally establish their priority against fast turning vehicles		• Pedestrians can more easily establish their priority against turning vehicles	
	Impact on cyclists		• Increased risk of left hook from fast turning vehicles cutting across cyclists		• Reduced risk of left hook from left turning vehicles due to lower speed	The smallest radii from the above should be used on **both** sides of the junction.
	Impact on vehicles		• Vehicles turn faster		• Vehicles turn slower	
Vehicle type and frequency	Higher frequency				 Lower frequency	Design to enable appropriate access for different vehicles, based on how frequently they use the street.
Accommodating large vehicles	Smaller vehicles can navigate a junction with minimal corner radii at low speed.			"Large vehicles can still negotiate junctions where minimal corner radii are used, depending on the width of the junction arms they are turning into and from. In some cases, it might be accepted that larger vehicles occasionally cross into the opposing lane allowing the vehicle to take a larger radius than the junction kerb." (MfS2)		Prevention of kerb overrun by measures such as bollards is not generally recommended

Table 3.7

3.9 Carriageway width considerations for Neighbourhood streets

Carriageway width	What can be accommodated across different carriageway widths*
2.75	
4.1m	
4.8m	
5.5m	

Examples above taken from MfS. **These are not necessarily recommendations.**

In lightly-trafficked streets, carriageways may be narrowed over short lengths to a single lane as a traffic calming feature. In some existing cases, parking can act as a traffic-calming feature.

Table 3.8

4. Streets for All design options

4.1 Introduction: Streets for All design options

This chapter sets out design options and interventions for consideration when designing street layouts for existing, or new, streets. The chapter is organised by street type, with each Streets for All essential considered in turn:

- Neighbourhoods
- Connector Streets
- High Streets
- Destination Places
- Strategic Roads

A context-sensitive design approach should be applied to assess and use the most appropriate options for that particular street or place. In certain contexts, items may be discounted immediately — for example, reallocation of street space to provide bus lanes is unlikely to be appropriate on a Connector Street that is not used by buses.

The diagrams in this section provide a schematic representation of features that could be considered for inclusion in street design. **They are not templates for design.**

Streets for All design requirements set out in Chapter 3 apply in all cases.

Cross references to the Streets for All Design Check metrics are provided, tying the design guide and design check together.

Example:

2.e Footways should be at a consistent level including through vehicle crossovers to ensure they are accessible for all. **S4A Metric 3**

Some of the items relate to 'critical' metrics in the Streets for All Design Check, and therefore are requirements. Not all design options set out in this chapter relate directly to a metric.

Due regard must be given to accessibility and equality and should be subject to vigorous and open-minded inquiry before settling upon a course of action.

As set out in Chapter 3, the street types are not intended for rigid application. Streets change over their length, and over time. Where there is a mix of street types, consideration of items across the street types may be appropriate.

4.2 Neighbourhoods

Most of our streets are Neighbourhood streets. They give access to our homes and link up with public transport and community facilities like schools and local shops. Walking and cycling should be the natural choice for these shorter local journeys. Making our Neighbourhoods greener and healthier, with reduced motor traffic, is good for everyone.

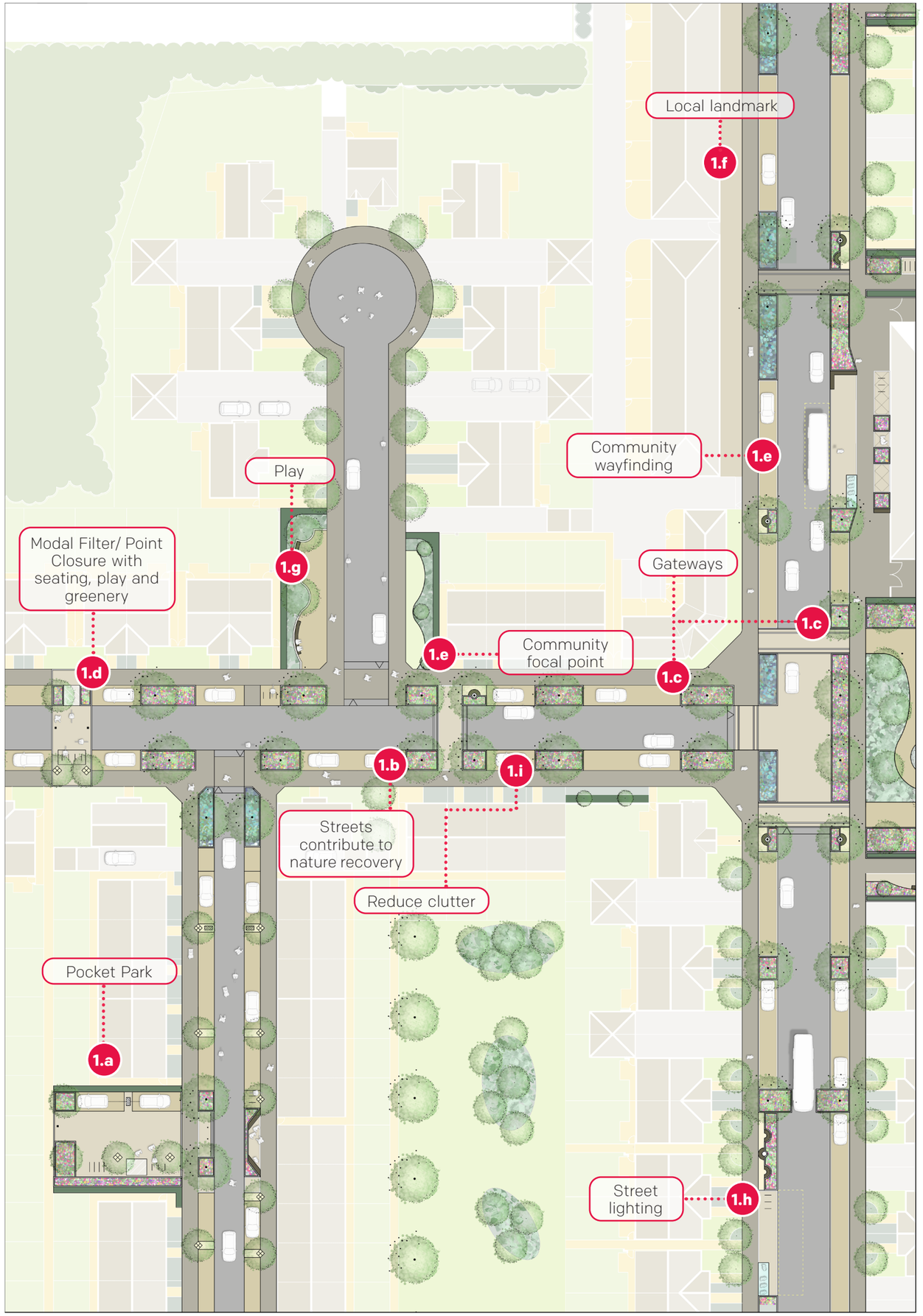
Green, vibrant streets that are welcoming and safe places to spend time in

- **1.a** Re-purpose space for people to meet, play, share experiences and come together as a community, including parklets, pocket parks, community gardens or benches/ seating areas. **S4A Metric 40**
- **1.b** Trees and planting to soften and enhance the 'hard' street environment, extend green corridors and connect and enhance the existing ecosystem. The guiding principle of 'right tree, right place' should be followed. Trees that are standard size, or larger, are of immediate benefit and are more robust. **S4A Metric 35**
- **1.c** Incorporate gateway features to signal transition between street types, including a change in materials, traffic calming or continuous footways. **S4A Metric 3, 37**
- **1.d** Create focal points and features that people can engage with and enjoy. This could include community features, interactive street art and play. **S4A Metric 40**
- **1.e** Provide community wayfinding to highlight alternative routes to points of interest. **S4A Metric 17, 38**
- **1.f** Streets should serve to enhance the setting of and highlight community facilities and local landmarks. **S4A Metric 35, 38, 40**
- **1.g** Streets can provide spaces for play and leisure, which feel like an extension of the private spaces around them. **S4A Metric 40**
- **1.h** A good standard of lighting in neighbourhoods has been shown to be one of the most effective ways to enable people to feel their streets are as safe and welcoming at night as during the day. Lighting design should consider effect of tree canopies, footways and cycleways as well as carriageway. **S4A Metric 33**
- **1.i** To create a more attractive and people-focused street environment, provide the least amount of signage, lining, bollards, islands etc. as is necessary to regulate and direct traffic safely. **S4A Metric 41**

Planters and street trees.

Neighbourhood street.

A neighbourhood corner with green and social space.



An inclusive and attractive walking and wheeling environment

2.a Consider movement strategy through the neighbourhood as a whole, taking account of key routes and desire lines, and prioritising walking, wheeling and cycling. **S4A Metric ALL**

2.b Consider how people move between neighbourhoods and provide crossing points over busier roads as appropriate. **S4A Metric 3, 6-11**

2.c Tight junction radii to slow turning motor vehicles - allows crossing on desire line, reduces need to look back over shoulder — which some find difficult, and reinforces pedestrian priority as per Highway Code. **S4A Metric 3**

2.d Raised crossings at junctions can act as gateways to indicate the transition into a neighbourhood and to slow down turning traffic. **S4A Metric 3**

2.e Vehicle access to private property must not interrupt the footway. Ensure as much of the footway width (minimum of 900mm) is at normal footway crossfall (2.5% max). This might be achieved in various ways, including the use of ramped kerbs. **S4A Metric 11, 39**

2.f Dropped kerbs or raised carriageway with tactile paving always provided at formal crossing points, controlled or uncontrolled, and across side roads at junctions providing continuous accessible routes. **S4A Metric 3, 15, 39**

2.g The presence of wheelie bins on footways are a major barrier to walking and especially wheeling. Options may be to consolidate household refuse or defined locations for households to leave their bins which don't block the footway.

2.h School Street, restricting through traffic in vicinity of school, camera enforced.

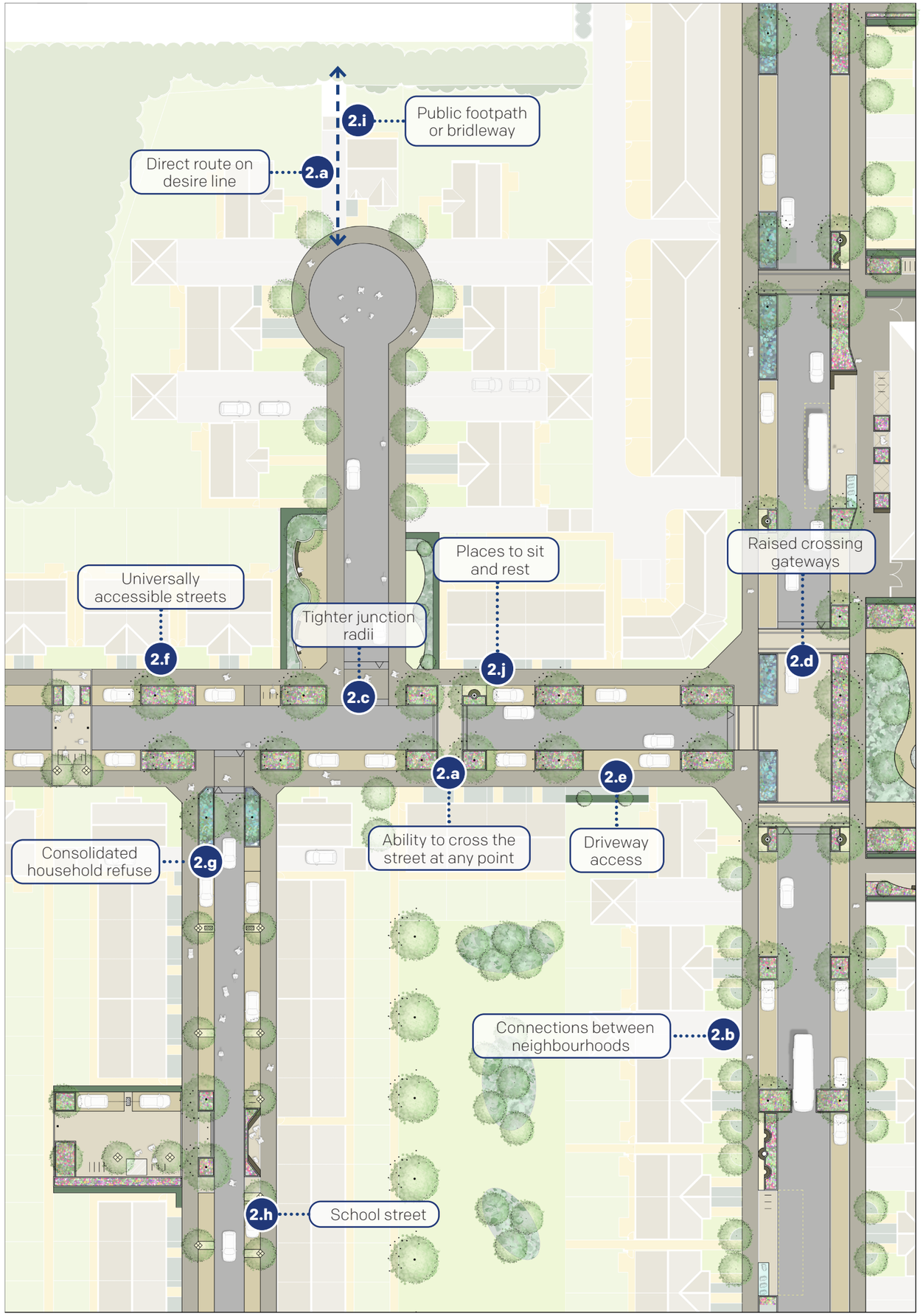
2.i All Public Rights of Way (PRoW) including bridleways and footpaths, permissive paths, and adopted highway, should be considered as part of the walking and wheeling network.

2.j Inclusive seating and resting places at a variety of heights, some with arm and back rests. **S4A Metric 16**

Ramped entrance kerb keeps footway at consistent level.

School street.

Connection to off-street path network.



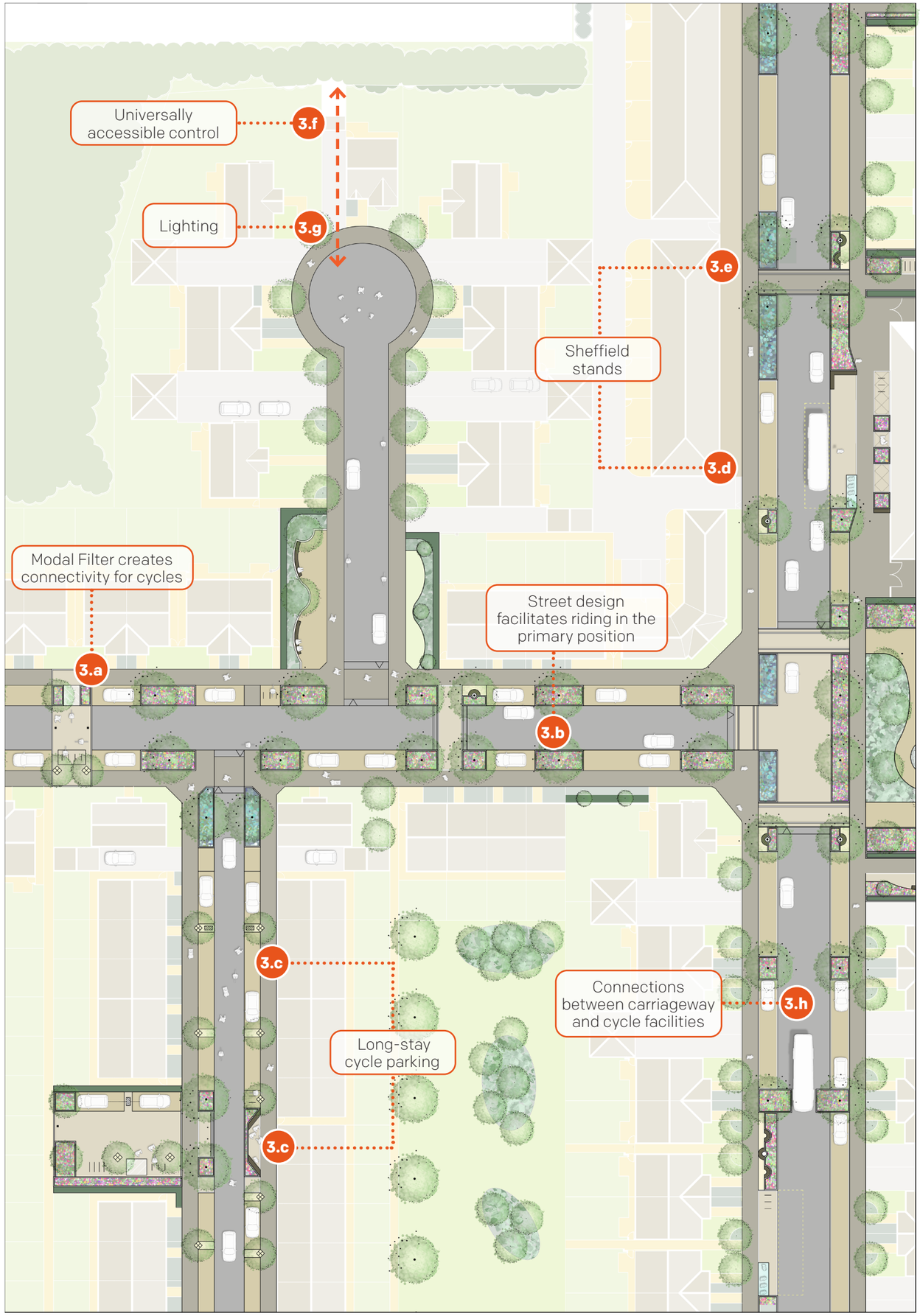
A safe and connected cycling experience

- 3.a Permeability and connectivity is created by universally accessible modal filters / point closures or off-highway connections to provide routes that are more convenient than driving. **S4A Metric 38**
- 3.b Streets should facilitate riding in the primary position (centre of the lane), sharing with traffic, particularly where there is on-street parking. **S4A Metric 19,20,22**
- 3.c Secure on street parking e.g. cycle hangars provided in locations on streets without off-street parking, located on-carriageway, carriageway build-outs or focal points. **S4A Metric 34**
- 3.d Sheffield stands provided at bus stops, local shops and neighbourhood facilities. **S4A Metric 34**
- 3.e Consider provision of cycle parking for short-stay visitors on medium and high density residential streets e.g. occasional Sheffield stands. **S4A Metric 34**
- 3.f Cycle facilities must be designed to ensure they are accessible to all types of cycles, including adapted and non-standard cycles. **S4A Metric 56**
- 3.g Cycle paths away from streets should be well lit, to enable safe use day and night. **S4A Metric 33**
- 3.h Connections between the carriageway and cycle facilities can be made without dismounting. **S4A Metric 27**

Lighting on off-road path.

Modal filter for walking, wheeling and cycling.

Accessible cycle facilities.



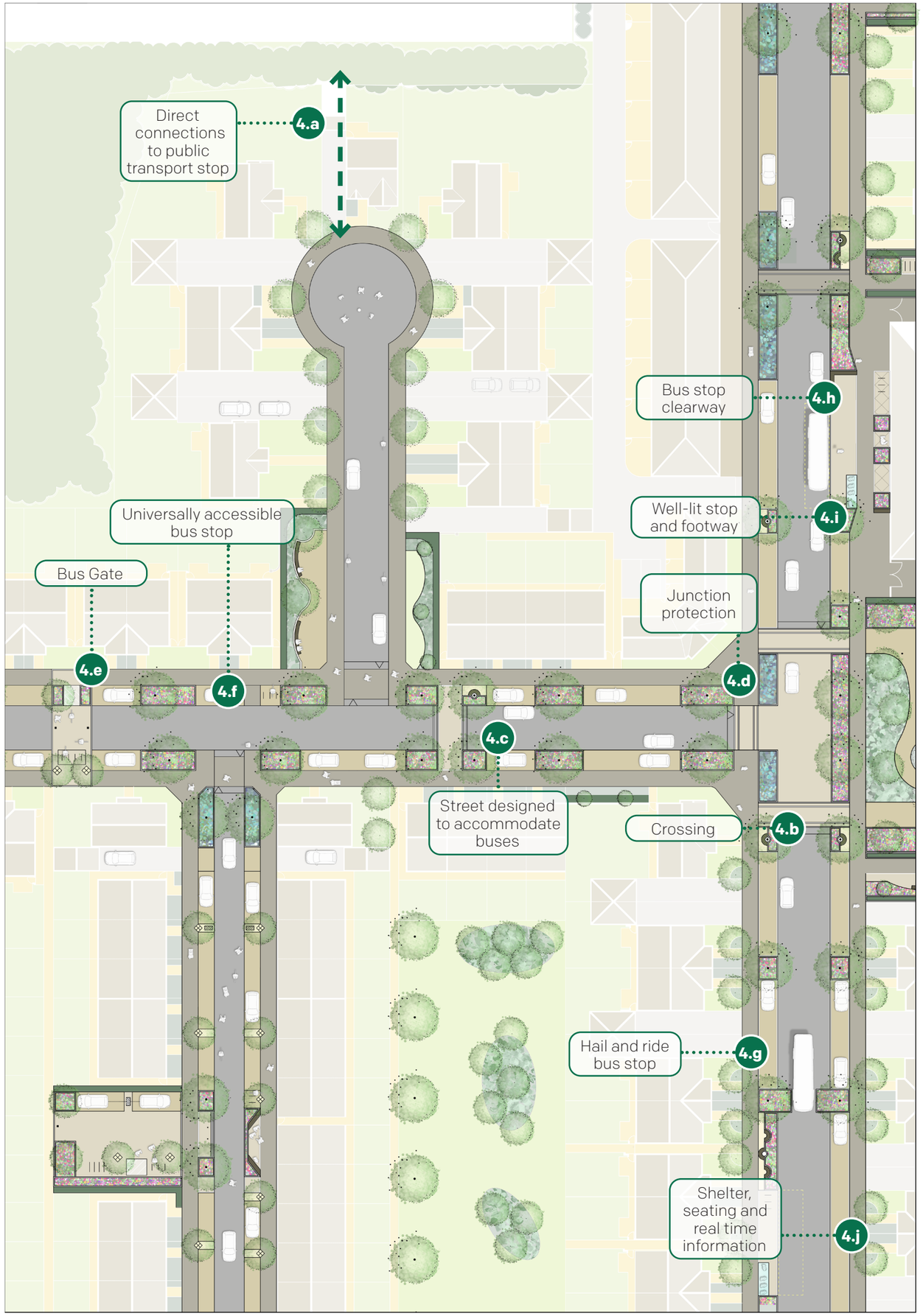
A reliable, integrated and accessible public transport network

- **4.a** Provide direct and universally accessible walking, wheeling and cycling routes to bus, tram and rail stops. **S4A Metric 38**
- **4.b** Provide appropriate crossings with dropped kerbs near bus stops. **S4A Metric 10**
- **4.c** Street schemes on bus routes must be designed to accommodate buses e.g. if a raised table crossing is proposed on a bus route, this needs to be 'bus friendly'. See Table 3.6. **S4A Metric 47, 48**
- **4.d** Junction protection using Traffic Regulation Orders (TROs) enables buses to navigate junctions more easily.
- **4.e** Bus gates can make buses more direct than cars, improve journey times and reliability **S4A Metric 47, 52**
- **4.f** Bus stops, shelters and footways should be universally accessible, for waiting, boarding and alighting (including space for ramp deployment for wheelchair users), and walking and wheeling by, with boarding points clearly defined. **S4A Metric 48**
- **4.g** Provide accessible boarding and alighting points on hail-and-ride sections of routes, to enable ramp deployment for wheelchair users to board and alight. **S4A Metric 48**
- **4.h** Bus stop clearways (both carriageway marking and associated signage) should be provided at all bus stops. **S4A Metric 58**
- **4.i** Bus stops should be in well-lit locations, with consideration to passive surveillance, potential dark areas or opportunities for concealment. **S4A Metric 32, 33, 51**
- **4.j** Where space permits, at busy stops or those serving key destinations, consider provision of shelter with lighting, accessible seating, and real-time next bus information. **S4A Metric 49, 50**

Bus friendly raised table.

Direct crossing to public transport stop.

Real time information screen.



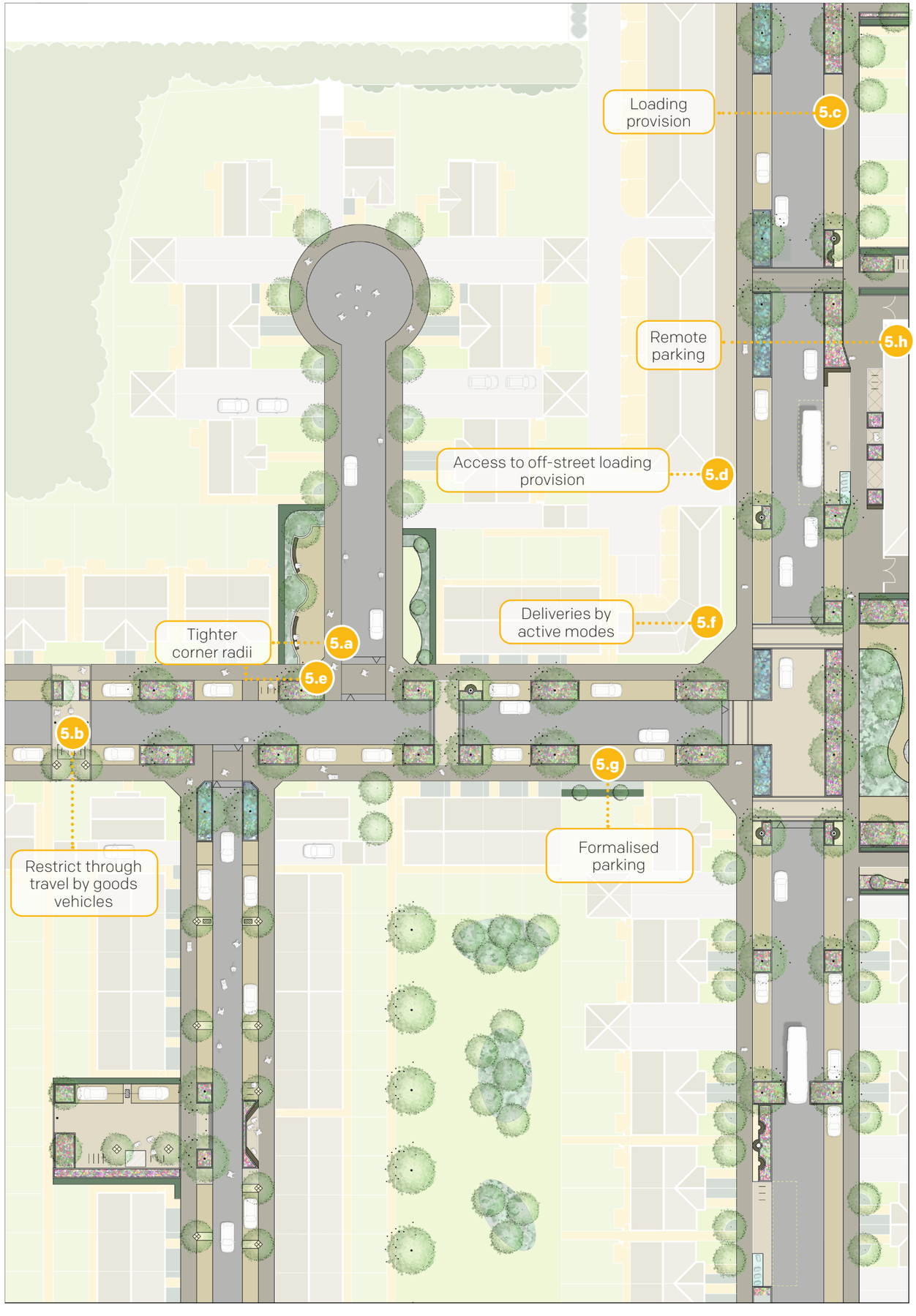
Appropriate provision for goods and servicing

- [ ] **5.a** Design to enable appropriate access for deliveries and servicing, but not design around them. Maintain access for emergency vehicles. **S4A Metric 41**
- [ ] **5.b** Either restrict through travel by large goods vehicles e.g. TRO or width restriction, or design to make through travel unattractive. **S4A Metric 21, 31**
- [ ] **5.c** Appropriate provision on-street for loading and servicing for local shops and businesses without dedicated facilities. For example, provide loading bays, consider time restrictions. **S4A Metric 30**
- [ ] **5.d** Ensure access for delivery vehicles from the street through to off-street/rear servicing facilities. **S4A Metric 30**
- [ ] **5.e** Tighter corner radii that still provide for access for larger vehicles at low speeds. **S4A Metric 3**
- [ ] **5.f** The neighbourhood should make it more attractive for businesses to make local deliveries by active modes e.g., cargo bikes, delivery trolleys. **S4A Metric 38**
- [ ] **5.g** Formalised parking can:
  - Help to reduce footway parking
  - Prioritise parking for residents in areas of high demand e.g. Resident parking zones
  - Provide for accessible parking near neighbourhood facilities
  - Allow for on-street EV charging facilities
- [ ] **5.h** In new high-density developments consideration should be given to providing basement parking or remote parking at a mobility hub. On-street parking on surrounding streets should be controlled though regulation, lines and signs.

Local deliveries by cargo bike.

Tight corner radii.

Formalised on-street parking.



Making best use of limited street space

Two key benefits of reallocating kerbside space are:

- It does not impact available footway width.
- There are usually less utilities in kerbside space than on the footway.

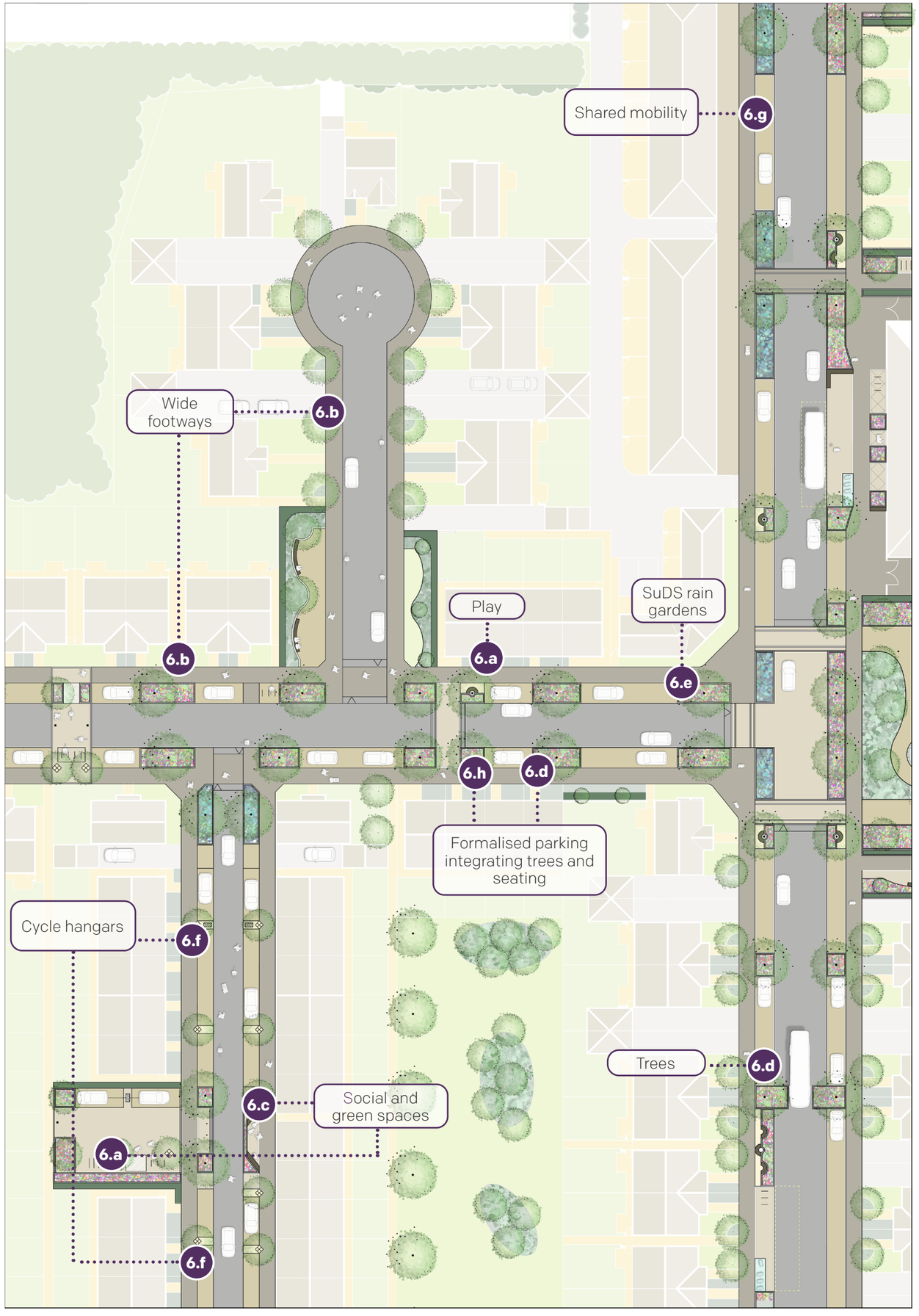
Other areas can also be repurposed to these uses (e.g. space within filters or underutilised spaces).

- ☐ **6.a** Spaces for people to meet, play, share experiences and come together as a community.
  S4A Metric 16, 39, 40
- ☐ **6.b** Widened footways.
  S4A Metric 12
- ☐ **6.c** Create new, or link up existing, green and blue spaces for people and nature.
  S4A Metric 35, 36, 38, 40
- ☐ **6.d** Street trees located in build-outs.
  S4A Metric 35, 36, 42
- ☐ **6.e** Sustainable Drainage Systems (SuDs).
  S4A Metric 35, 36, 39, 42
- ☐ **6.f** Cycle hangars / inclusive cycle parking.
  S4A Metric 34
- ☐ **6.g** Shared mobility e.g. cycle hire, e-scooter hire. Preferably located in carriageway parking bays or on build-outs to maintain footway widths.
  S4A Metric 12, 43

Community space.

Street tree on a build-out. Credit: Trees for streets.

Wide variety of features that make best use of space.



A resilient and connected street network

7.a Any public on-street EV charging facilities and equipment such as feeder pillars should not compromise footway width (e.g. be located in-carriageway build-outs within sheltered parking). **S4A Metric 12**

7.b Standard materials generally used, except at focal points and possibly gateways. **S4A Metric 37**

7.c Careful design, choice of materials and quality of construction reduce ongoing maintenance needs and prolong the life of the surface.

Neighbourhoods should be designed to be resilient to the effects of climate change, by:

7.d **7.e**
- Use of permeable surface treatments. **S4A Metric 35, 36, 37**
- Street trees to improve air quality, provide habitat and canopy cover for cooling and shading. **S4A Metric 35**

7.f
- Planting areas in rain gardens, at pocket parks or modal filters prioritise pollinator-friendly species, are low-maintenance and appropriate to conditions (e.g. shade, drought, poorly draining soil). **S4A Metric 3, 35, 36**

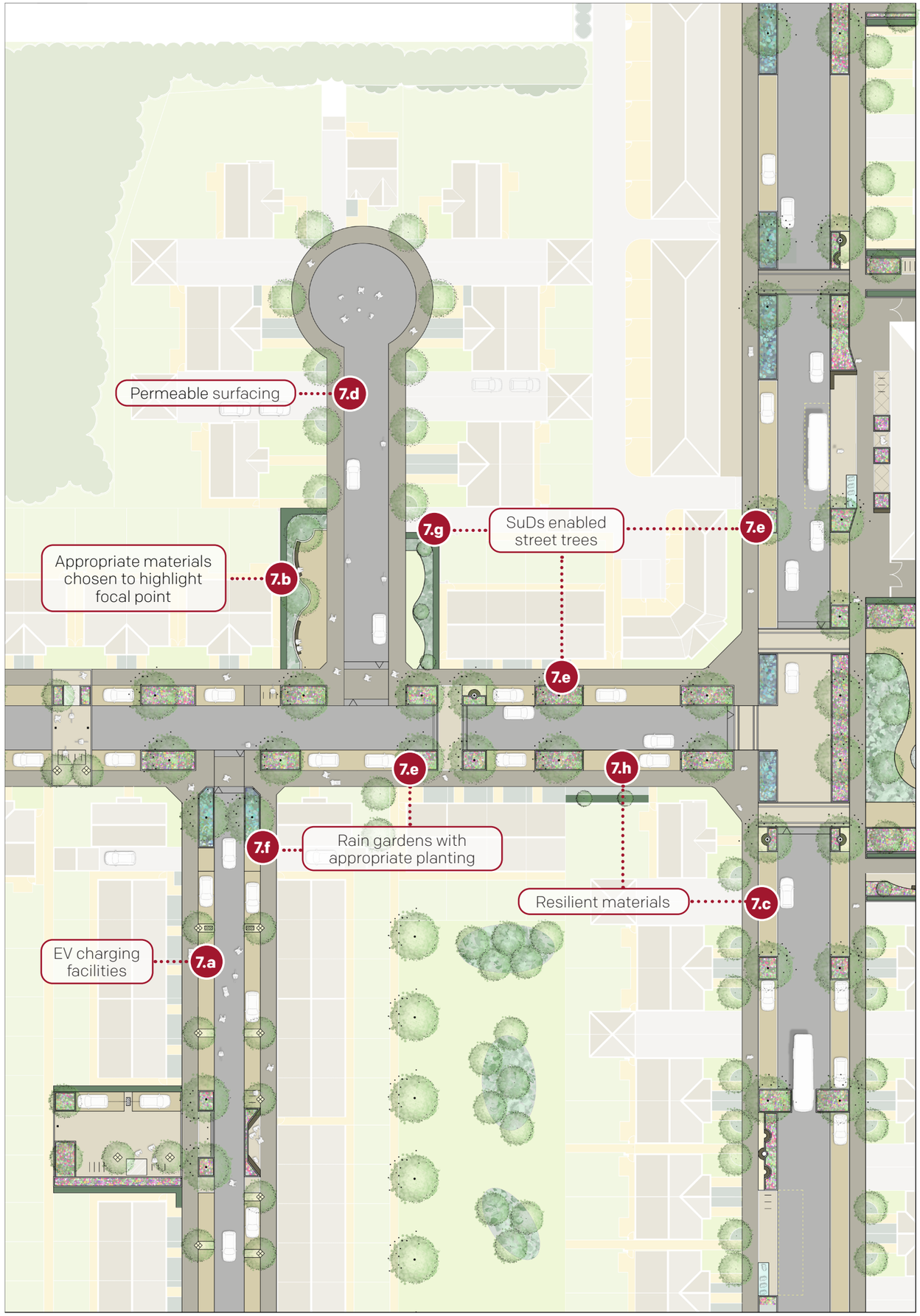
7.g
- Opportunistic SuDS located within build-outs and gateways. **S4A Metric 35, 36, 39**

7.h
- Surface treatments should be resilient to higher temperatures (e.g. binders used for surface dressing and asphalt). **S4A Metric 37**

On-street EV charging facilities.

Rain garden. Credit: Mott Macdonald.

Wildflower planting. Credit: Mott Macdonald.



4.3 Connector Streets

Connector Streets are part of and join up our Neighbourhoods. They also connect our town and city centres. They form the backbone of our bus network and are often the most direct routes for walking, wheeling, cycling and other traffic. Balancing their different roles can make them better places to both pass through and spend time in.

Connector Streets

Green, vibrant streets that are welcoming and safe places to spend time in

1.a Street trees can transform how people experience and perceive streets, whether they are driving, walking, wheeling, cycling along, spending time in, or living on a street. Particularly on busier streets, they counter impacts of traffic and parking, reduce visual dominance of hard surfaces, and support biodiversity. **S4A Metric 35, 36, 39, 40**

1.b Green features minimise and mitigate the impact of air and noise pollution from motorised vehicles for people who live on and use these streets. **S4A Metrics 40, 42**

1.c Street lighting on Connector Streets is usually higher than in Neighbourhoods. In certain contexts, it may be beneficial to provide supplementary lighting (e.g. one additional lamp is provided part-way up a tall lighting column to illuminate footway and cycle track). **S4A Metric 32, 33**

1.d Apply a context-sensitive speed limit (20mph or 30mph in built up areas) appropriate to the streetscape, and consider enforcement with speed cameras where implementation criteria is met. **S4A Metric 19**

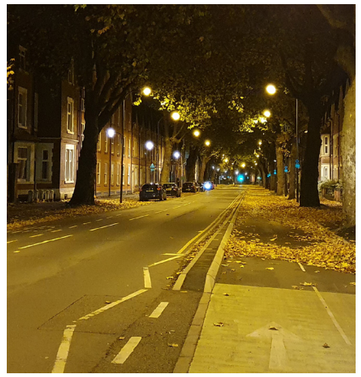
1.e Incorporate gateway features to signal transition between Connector Streets and other street types, such as a change in materials, raised entries, traffic calming or continuous footways. **S4A Metric 3**

1.f Look for opportunities to increase human activity on the street which provides informal surveillance and helps people feel comfortable using the street. **S4A Metric 32, 40**

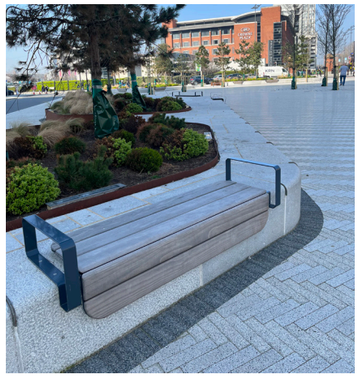
1.g Street design should respond to changing frontage context along the street. **S4A Metric 19**

1.h Observe and evaluate how the street feels as a place to pass through — using different modes — and spend time in, both in daylight and after dark. This could include consideration of perceived illumination levels as part of a general personal safety review, or extend to formal measurement of illumination levels. **S4A Metric 32, 33, 40**

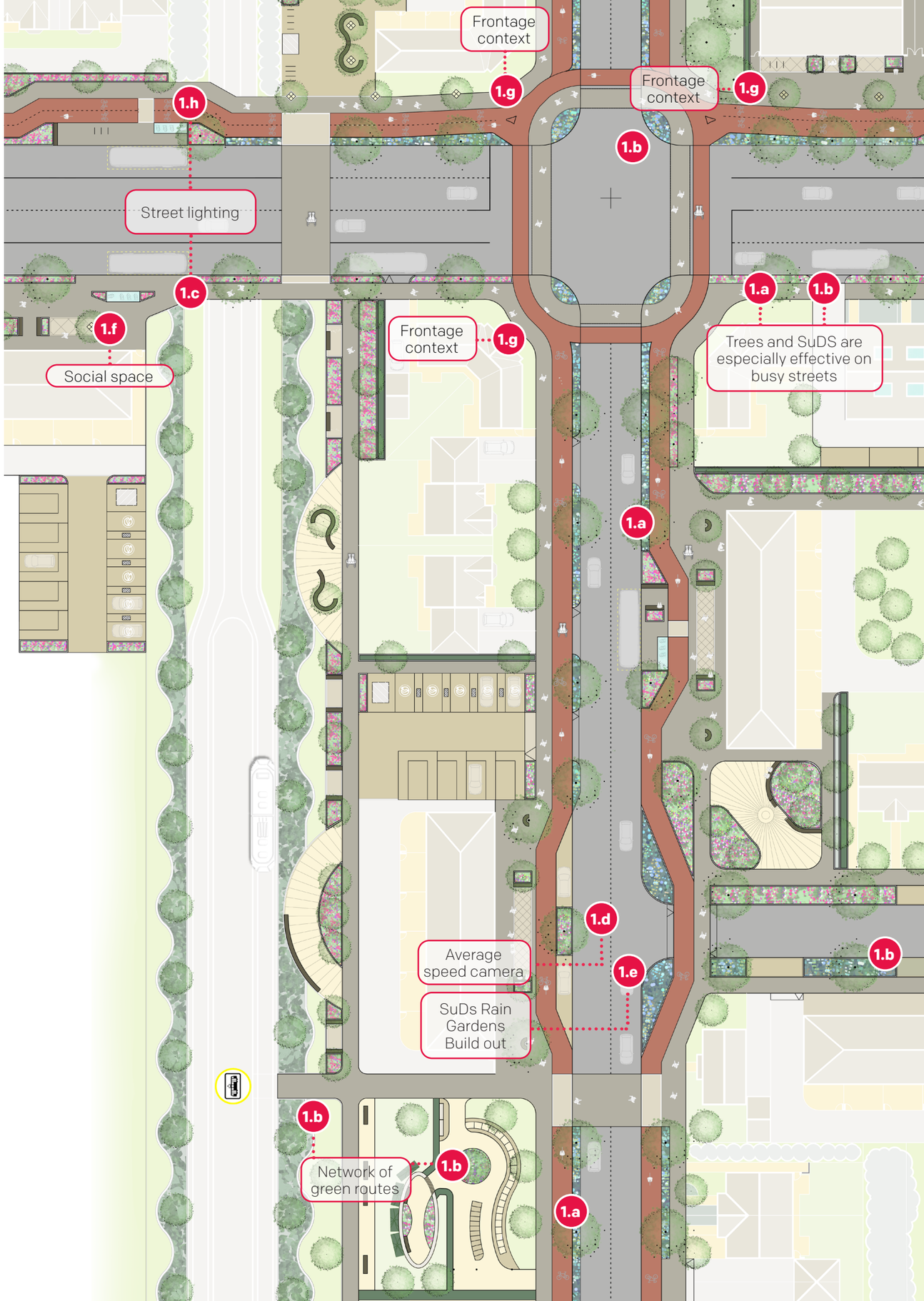
Local Connector Street / Neighbourhood gateway. Credit: Mott Macdonald.



Well-lit Connector Street.



Street design promotes the street as a place to spend time in. Credit: Mott Macdonald.



An inclusive and attractive walking and wheeling environment

2.a Observe and evaluate how the street is currently used throughout the day by people walking and wheeling, taking account of desire lines and barriers to movement. **S4A Metric 3, 4, 6-11, 12-18, 38, 39**

2.b Highways signage and other street furniture, e.g. utility cabinets, must not cause an obstruction. **S4A Metric 12**

2.c Controlled mid-link crossing points are most beneficial where there is a particular demand, serving key destinations including public transport stops and stations, community facilities or major employment sites. **S4A Metric 6-10**

2.d The type of crossing should be appropriate for the street context, including traffic volume and speed, e.g. uncontrolled, zebra or signalised. Signalised crossings with pedestrian call buttons must be fitted with rotating cones. Consider audio signalling where there is an all-red phase. **S4A Metric 7-10**

2.e Crossings should be direct and take account of desire lines, with staggered or multiple-stage crossings with traffic islands or refuges avoided where possible. **S4A Metric 7, 10**

2.f Raised crossings provide pedestrian continuity along Connector Streets and slow turning traffic. **S4A Metric 3, 11, 39**

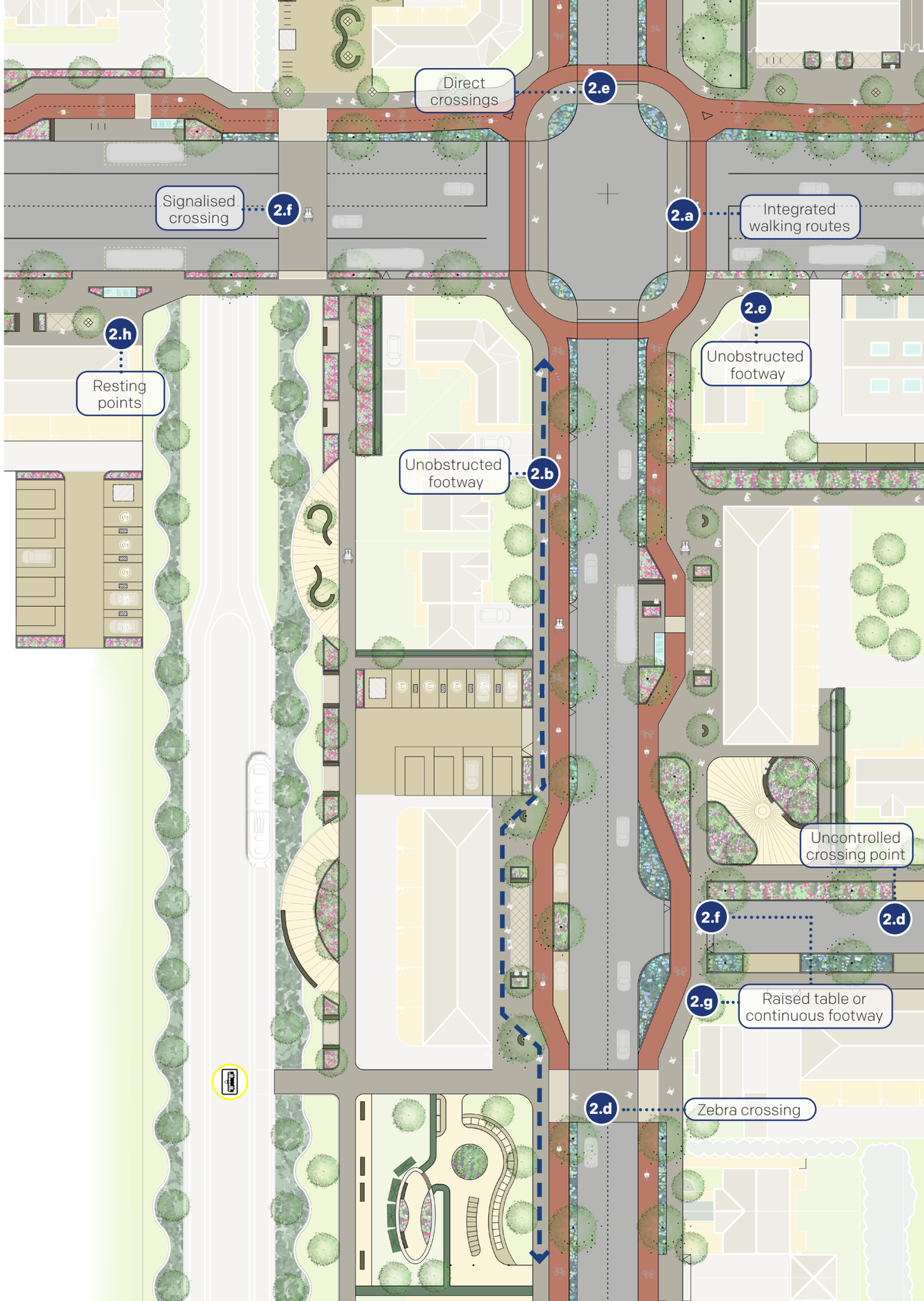
2.g Consider use of continuous footways where turning volumes of motorised vehicles are very low. Correct installation of tactile pavement is required in all cases. **S4A Metric 3, 11**

2.h Provide inclusive seating at frequent intervals without cluttering the street. **S4A Metric 16**

Raised crossing. Credit: Mott Macdonald.

Wide crossing on desire line. Credit: Mott Macdonald.

Sparrow crossing.



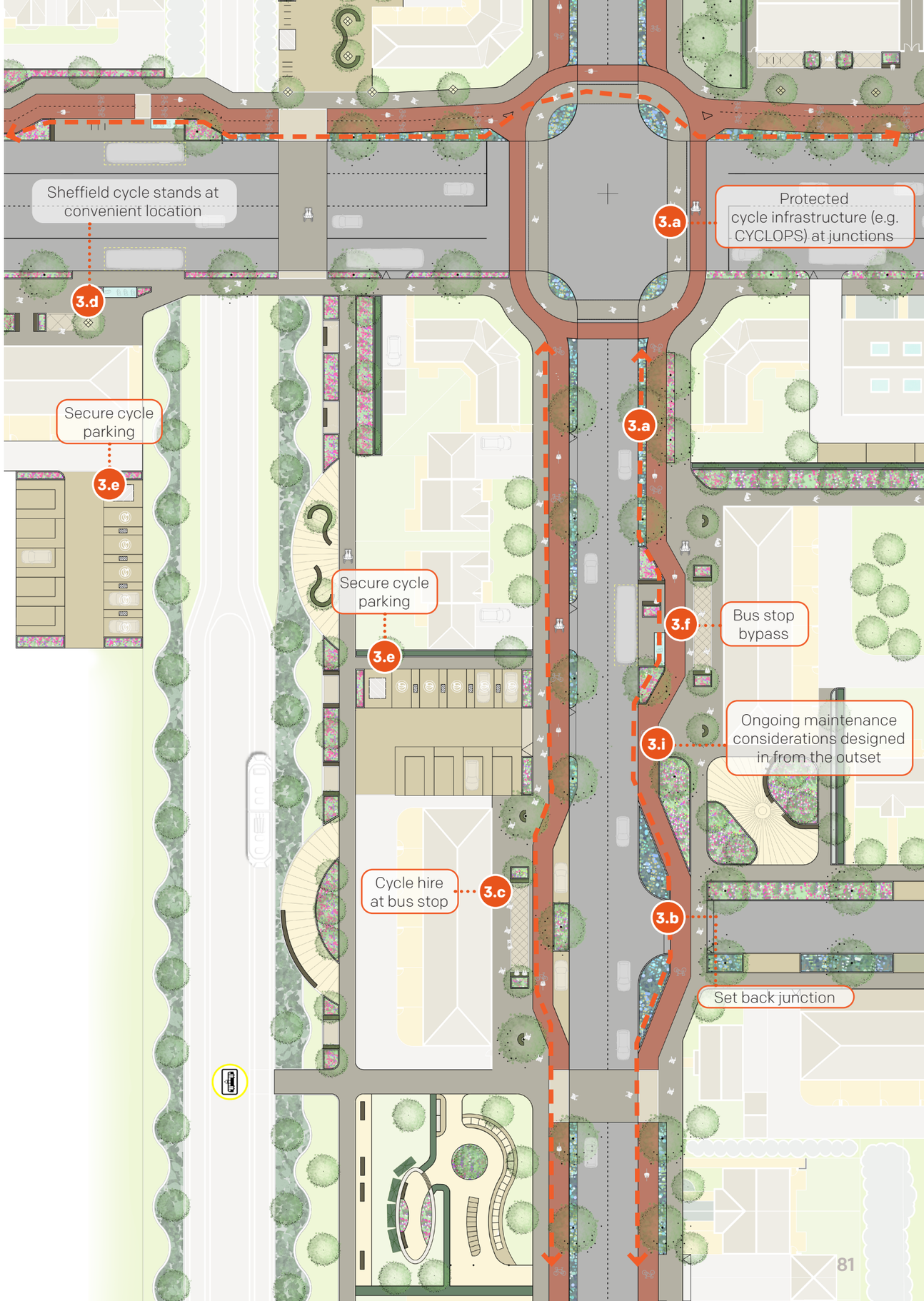
A safe and connected cycling experience

- [ ] **3.a** Provide dedicated and protected space for cycling which may involve reallocating existing space within the highway (or providing a parallel route). **S4A Metric 19-29**
- [ ] **3.b** Provide safe routes for cyclists through all junctions. **S4A Metric 1-3**
- [ ] **3.c** In areas where shared cycle or e-scooter hire is available, provide stands at strategic locations, such as shops, high-use bus stops with large catchments, tram stops, and key destinations, while maintaining clear pedestrian routes for people walking and wheeling. **S4A Metric 34**
- [ ] **3.d** Row of Sheffield stands positioned to accommodate non-standard cycles provided at convenient locations, for example shops, workplaces and community facilities. **S4A Metric 34**
- [ ] **3.e** Secure cycle parking for flats, or at tram stops, rail stations, interchanges, that can accommodate non-standard cycles. **S4A Metric 34**
- [ ] **3.f** Where space permits, Bus Stop Bypasses should be used on protected cycle tracks, where the cycle track is routed to the rear of the bus stop. These should be designed to reinforce pedestrian priority at crossing points. **S4A Metric 48, 49**
- [ ] **3.g** Shared Use Bus Boarders (SUBBs), for use at locations where a Bus stop bypass cannot be provided due to space constraints, are currently being evaluated for potential use in Greater Manchester.
- [ ] **3.h** Consider carefully the best facility given the context, including availability of space, (e.g. two-way cycle tracks can be more space efficient than two unidirectional tracks on either side of the street).
- [ ] **3.i** Consider carefully how the cycle lane or track will be maintained (e.g. swept, gullies cleaned, resurfaced). **S4A Metric 39**

Crossings over a Multi-lane Connector Street and protected cycle track.

Protected cycle track along Multi-lane connector street.

Two-way cycle track.



Connector Streets

A reliable, integrated and accessible public transport network

4.a Provide high levels of bus priority (e.g. bus lanes, bus gates, signal priority at junctions, bus advance/ passby signals, flow metering) in main bus corridors, where appropriate/ possible, to reduce journey times and improve reliability. Remove bus lay-bys (site specific) to avoid delays when rejoining traffic. **S4A Metric 47, 52**

4.b Maintain 2m (with an absolute minimum of 1.2m) footway widths for people walking and wheeling past a bus shelter. **S4A Metric 12, 18**

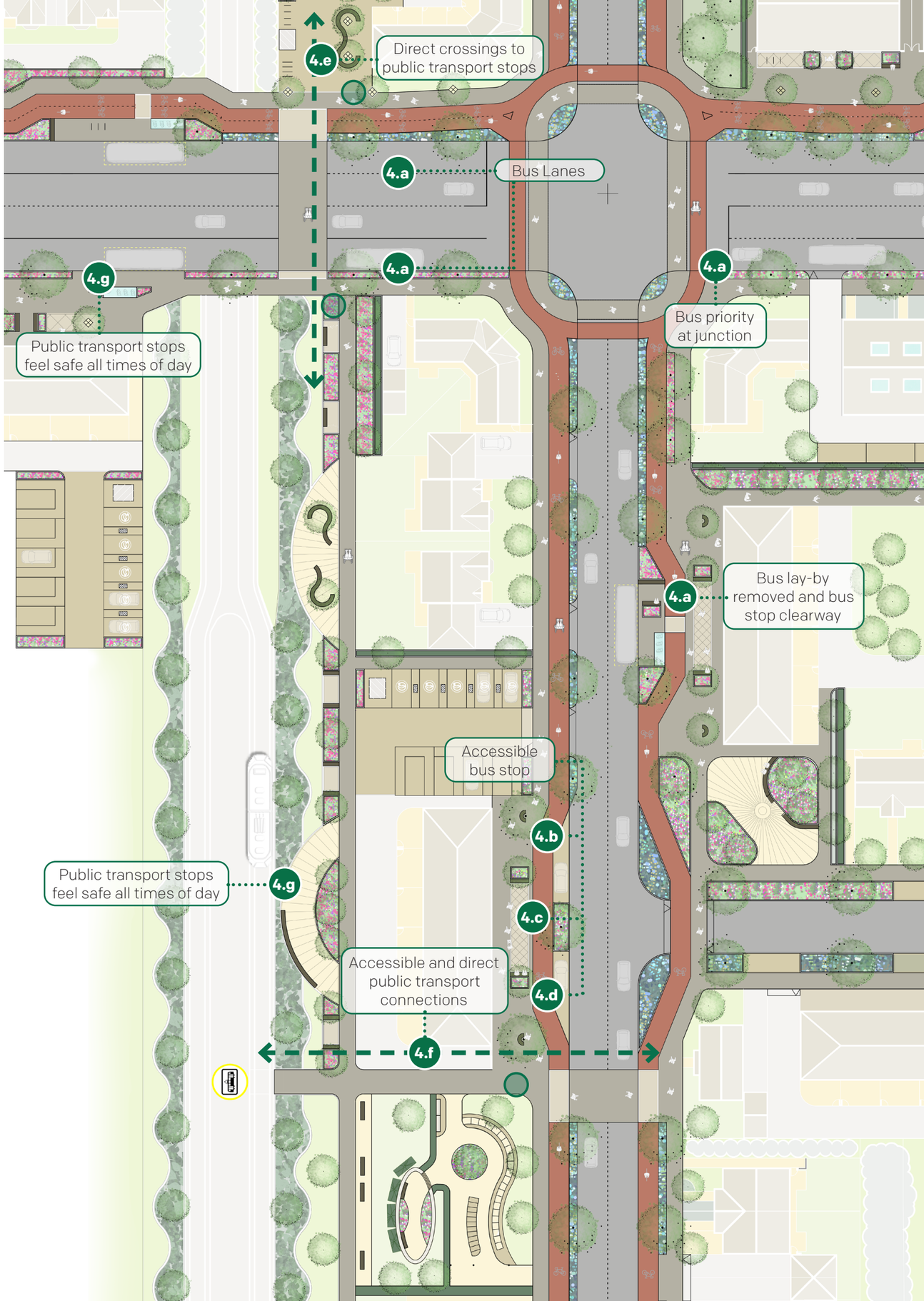
4.c Provide wheelchair accessible bus stops wherever possible. A 2x2m clear boarding area for ramp deployment and manoeuvring is required to provide a wheelchair accessible bus stop. **S4A Metric 48, 49**

4.d Ensure kerb height is sufficient for bus wheelchair ramp deployment at the boarding point. **S4A Metric 48**

4.e Crossings that give direct access to public transport stops, stations and interchanges. **S4A Metric 6-10**

4.f Universally accessible and well-illuminated access routes to public transport stops, stations and interchanges. **S4A Metric 11-15, 33**

4.g Public transport stops should feel like safe places to wait at all times of day and night (e.g. be well-illuminated in the hours of darkness and have good sight-lines). **S4A Metric 32, 33, 51**



Red Route clearway.

Bus gate.

Bus priority.

Appropriate provision for goods and servicing

5.a Consider frontage use and street function throughout the day when providing for loading and servicing. **S4A Metric 30, 41**

5.b Consider the context of the street and the volume of large vehicles and how they can be accommodated while also ensuring these streets are comfortable and welcoming for walking, wheeling and cycling. **S4A Metric 30, 41**

5.c Seek to provide off-street loading and servicing, and provide on-street loading facilities only where there is no other alternative. **S4A Metric 30, 41**

5.d Consider if Traffic Regulation Orders (TROs) are necessary to regulate loading, supported by direct and expected enforcement. **S4A Metric 30, 41**

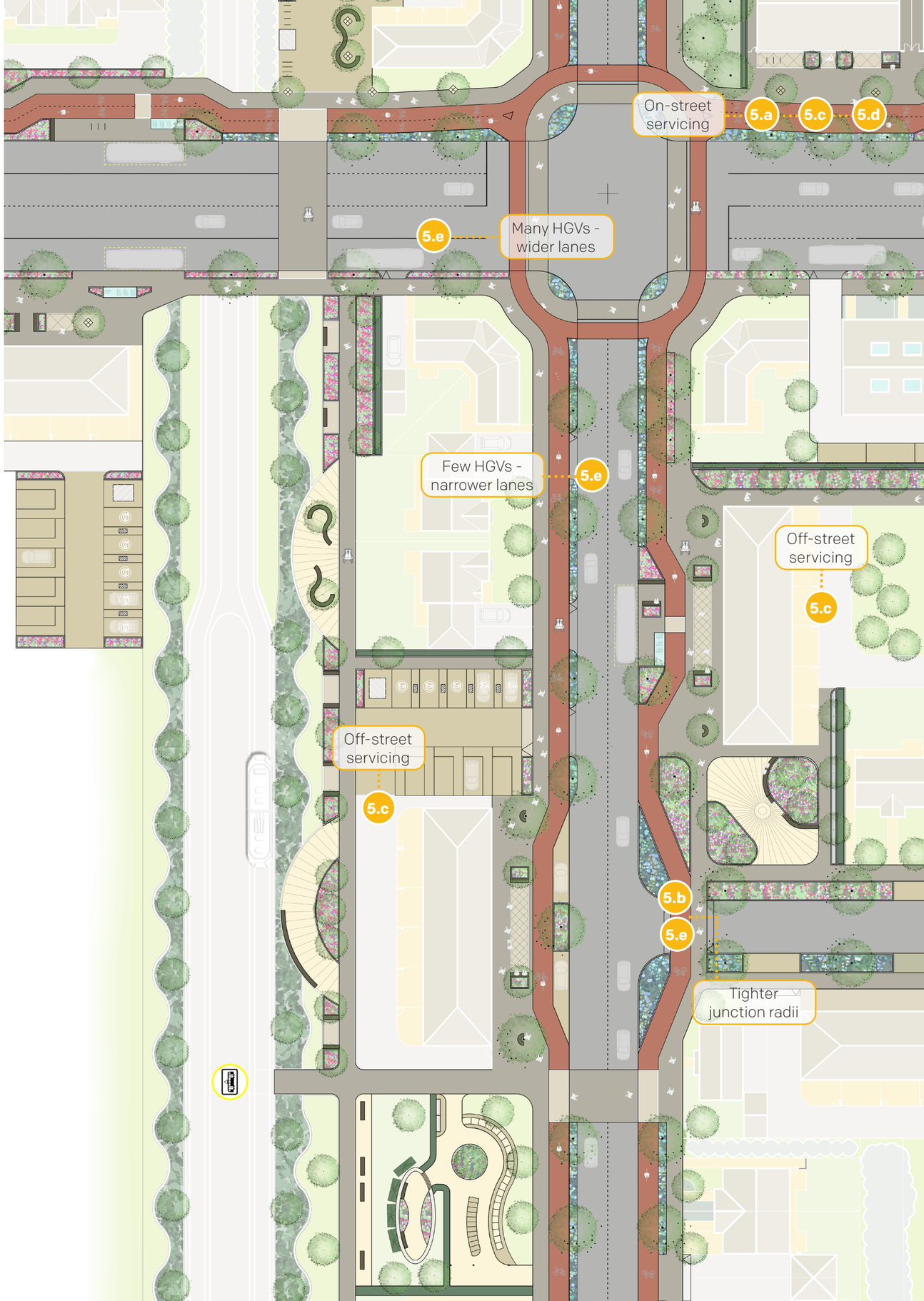
5.e Consider frequency of use by large goods vehicles in setting key design parameters:

- Some streets are important for and have high flows of goods vehicles and should be designed accordingly
- In all cases, design to enable appropriate access for deliveries, servicing and emergency vehicles

5.f Consider any current or proposed provision of waiting and loading restrictions along corridors, for effectiveness and suitability. Red Route designation may be appropriate along some of the busiest street corridors, to expedite safe movement of buses and general traffic. **S4A Metric 30, 41, 52**

5.g There may be a need for on-street parking where there is little or no provision of off-street parking for residents. Where possible, seek to formalise and regulate parking to:

- Deter footway parking
- Ensure that footways, cycle tracks and, as and when appropriate traffic lanes are kept clear for all users
- Free up space for other features e.g. street trees, rain gardens, benches, cycle parking
- Facilitate and maintain safe movement of general traffic
- Provide for efficient flow of buses – e.g. prevent parking in bus lanes during hours of operation, bus stop clearways. **S4A Metric 41, 47, 52**



Making best use of limited street space

6.a Reallocate carriageway space to provide the space needed for walking, wheeling, cycling, bus priority:

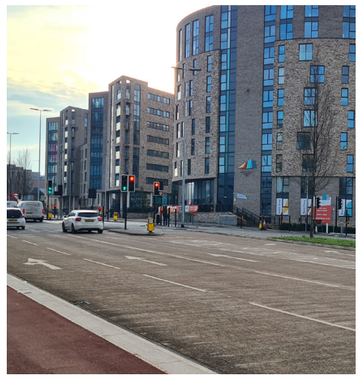
- To achieve a balance between the conflicting demands on space available
- To achieve a balance in the allocation of time between different uses, for example:
  - Waiting and loading restrictions
  - Allocations of time to different users at signals
  - Timed restrictions such as bus lanes
- Seek to reallocate space to provide attractive and direct routes for active modes and buses
- Seek to reallocate space to provide direct routes and reliable journey times for buses
- Design sensitive to context and frontage uses e.g. homes, schools, community facilities

6.b Reallocate space to green / blue infrastructure – trees, rain gardens, planting. **S4A Metric 35, 36**

6.c Reallocate space to respond to context and frontage uses e.g. homes, schools, community facilities, retail, hospitality. **S4A Metric 40**

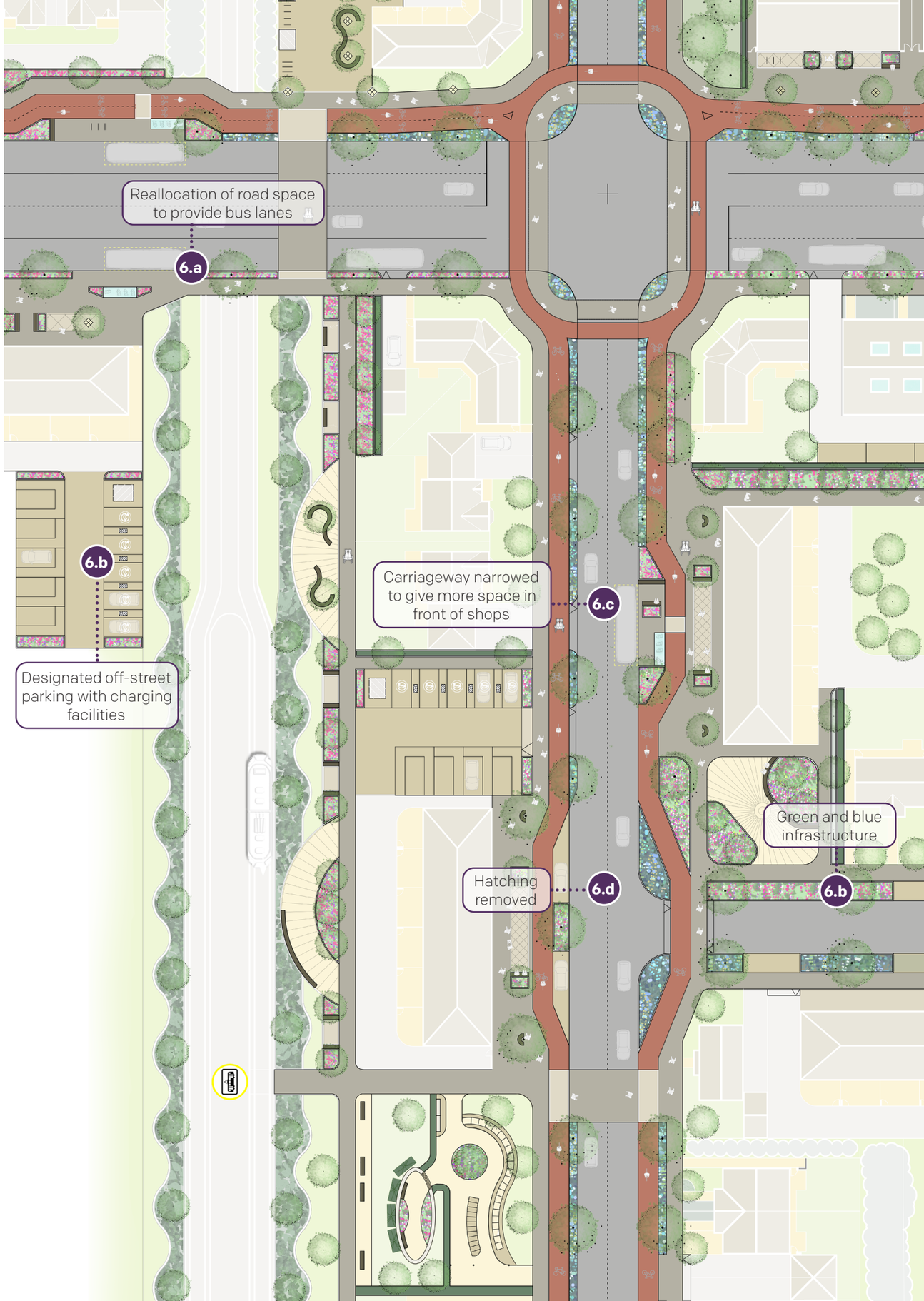
6.d A central island, wide central reservations, or painted hatching may be an inefficient use of limited space. In built up areas, (e.g. posted speed 30mph or below), consider if some, or all, of this space can be reallocated to the side(s) of the carriageway to provide for active modes, public transport, public realm or formalised parking.

Junction build out, seating and parking restriction.



Multi-lane Connector Street with crossings, cycle track and green infrastructure.

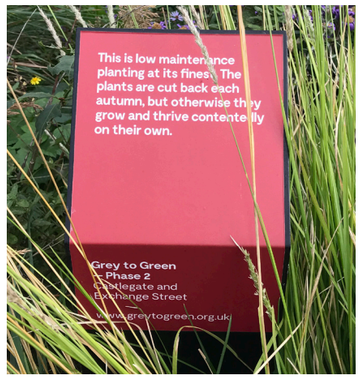
Space reallocated to different street functions.



A resilient and connected street network

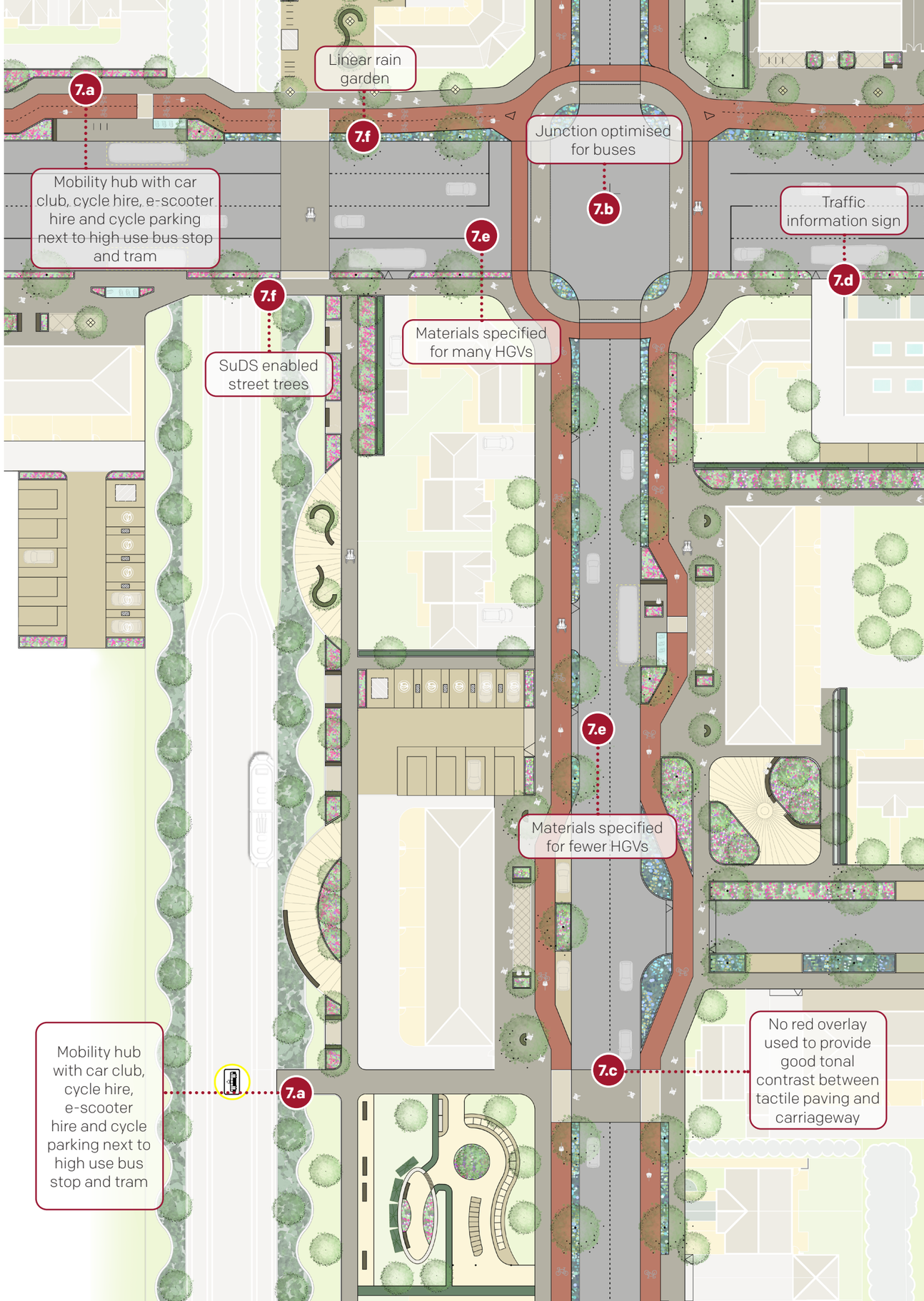
- [ ] **7.a** Shared mobility, such as hire cycles and e-scooters (in areas covered by schemes) located close to and connecting with buses, trams and trains. **S4A Metric 43**
- [ ] **7.b** Adapted signals to prioritise walking and wheeling, cycling and public transport. **S4A Metric 8**
- [ ] **7.c** Minimise use of coloured overlays on the carriageway. These quickly become faded and worn and represent an ongoing maintenance liability. They should be avoided in hatching and at controlled pedestrian crossings where they blend in with tactile paving. **S4A Metric 15**
- [ ] **7.d** Strategically placed Variable Message Signs (VMS) to keep users informed about their current journey and/ or provide information to influence future travel plans.
- [ ] **7.e** Material choices suited to volume and type of traffic and whole life maintenance considered. **S4A Metric 37**
- [ ] **7.f** Use SuDS to minimise surface water run-off. For example:
  - Linear rain gardens (e.g. to create a buffer between carriageway and protected cycle track) **S4A Metric 35, 36**
  - Swales **S4A Metric 35, 36**
  - SuDS enabled street trees **S4A Metric 35, 36**

Rain gardens along cycle track.



Low maintenance planting.

Adapted signals.



4.4 High Streets

High Streets are at the heart of our communities and are important places for shopping, leisure and work. Walking, wheeling, cycling and public transport connections are important to their success, as well as access by cars and deliveries. They should be enjoyable places to spend time in.

Green, vibrant streets that are welcoming and safe places to spend time in

1.a Include spaces for people to meet, rest, relax and interact which are accessible to all, to create interesting and engaging High Streets. Often, underutilised spaces could be easily re-purposed for this at relatively low cost. **S4A Metric 40**

1.b Provide inclusive seating at frequent intervals, whilst maintaining a clear pedestrian route, without cluttering the street. **S4A Metric 16**

1.c Include planting and trees to soften the appearance of the built environment and mitigate the impact of traffic. Planters in particular lend themselves to High Street environments and areas of underutilised space. **S4A Metric 35, 36**

1.d Design of spaces should respond to, and provide, focal points, including use of public art, setting of key buildings, etc.

1.e Incorporate landscaping and material choices to reflect and enhance the local character. **S4A Metric 35, 36**

1.f Materials can be used to create a legible environment. For example by using different materials for areas and spaces, such as footway zones or the extent of street cafés. **S4A Metric 15**

1.g Lighting of streets and public places should be uniform and provide a warm and welcoming environment for people in which they feel safe. **S4A Metric 33**

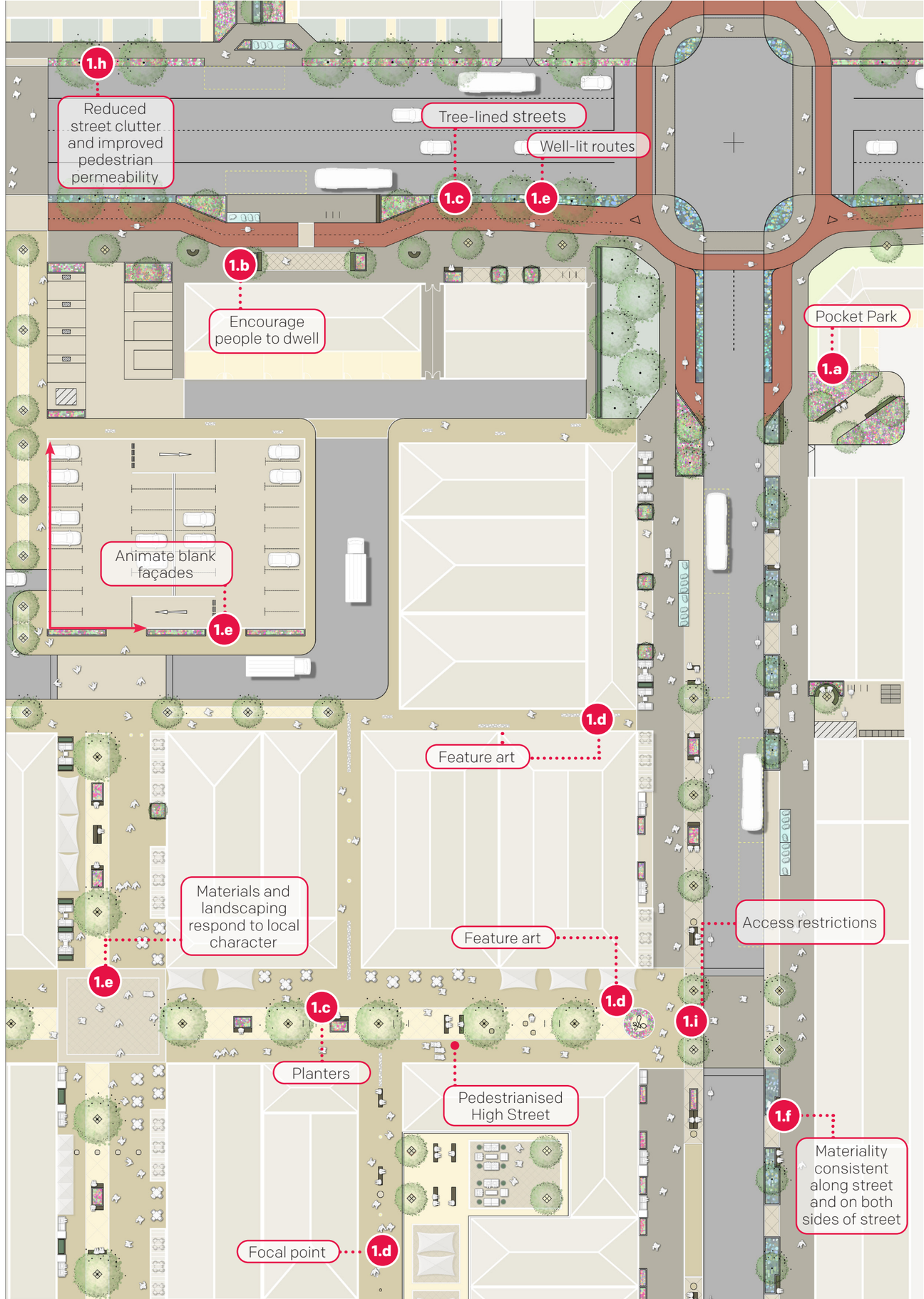
1.h Design of safe and welcoming High Streets should minimise the need for intrusive measures such as pedestrian guardrail, excessive signage and roads markings, etc. In reviewing existing situations, rationalise wherever possible.

1.i Different types of access controls will be appropriate for pedestrianised zones. **S4A Metric 31**

City-centre parklet.

Streets that celebrate local character.

Interactive public art installation.



An inclusive and attractive walking and wheeling environment

2.a Clear pedestrian routes are provided throughout. Adequate width provided for predicted pedestrian flows, with additional width for activities such as browsing. Shop frontages should be clear from clutter and unnecessary obstruction. **S4A Metric 12**

2.b There should be clear and legible zones for different uses — pedestrian routes, street furniture and planting, frontage activity. Potential frontage activity such as hospitality overspill should be considered in design, and kept clear of pedestrian routes, and clearly sectioned-off in a way that can be detected by a blind or partially sighted person. **S4A Metric 12, 15**

2.c Footway surfaces should be free of trip hazards. This is particularly important for High Streets because of the high numbers of people walking and wheeling. **S4A Metric 13**

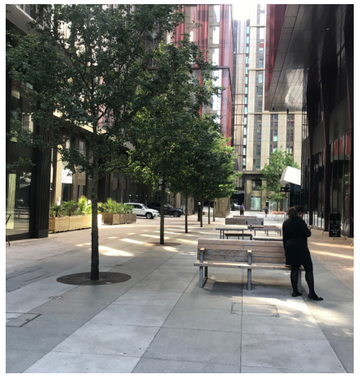
2.d Footways should maintain a consistent level across side roads and vehicle access to property. **S4A Metric 3, 11**

2.e Provide frequent crossings on pedestrian desire lines. **S4A Metric 10**

2.f Signalised crossings on High Streets should give people enough time to cross the street, taking account of slower walkers and wheelers. Consider use of countdown signals. **S4A Metric 8, 9**

2.g Integrate key walking routes onto streets with active frontage to support people to feel more comfortable and safer. This is particularly important in High Streets, the use of which changes from day to night. **S4A Metric 32, 33, 38**

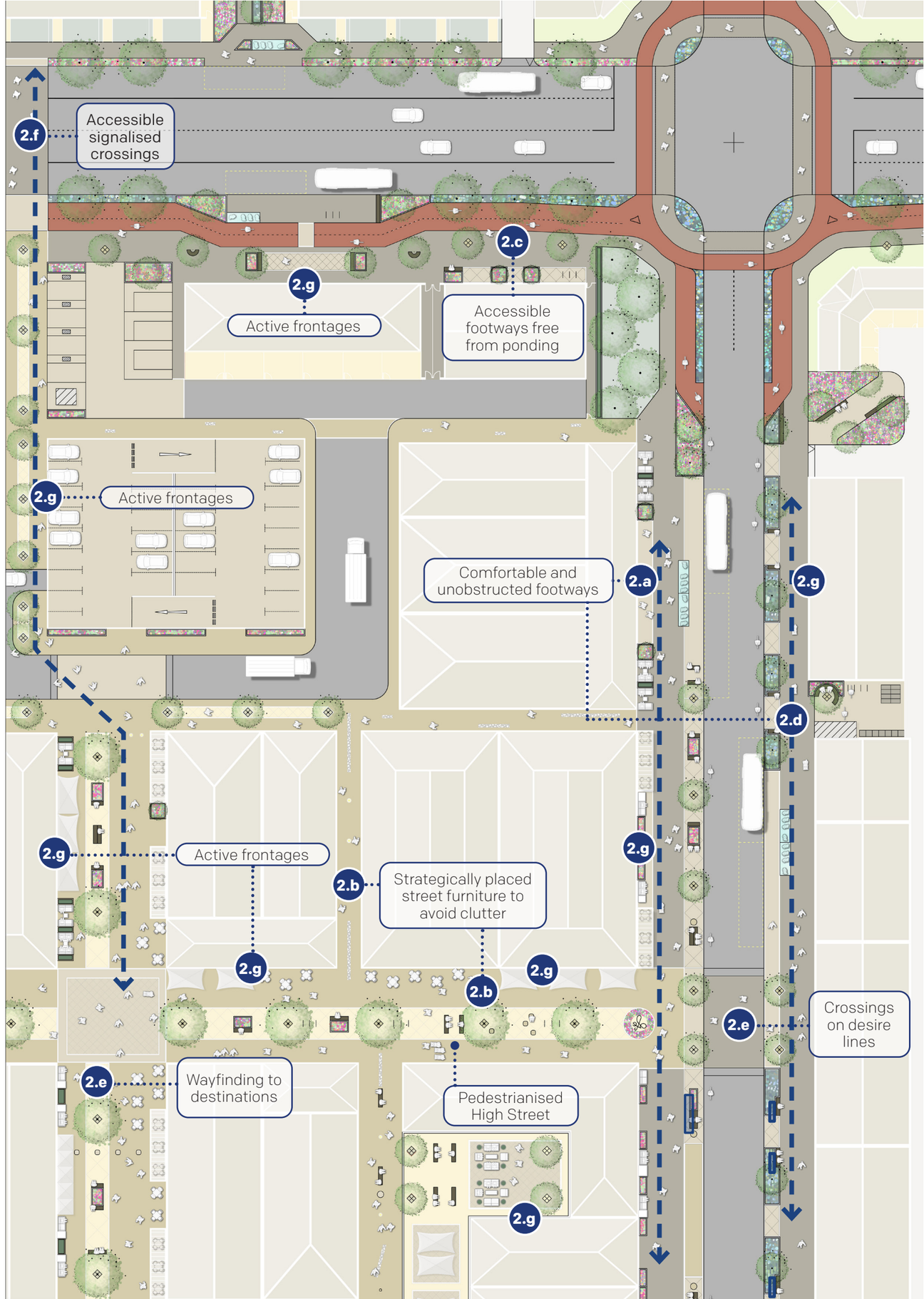
2.h Provide legible and intuitive wayfinding to destinations using direct routes. **S4A Metric 17, 38**



Legible zones for different uses.

Wide controlled crossing on pedestrian desire line.

Wide clear pedestrian route.



A safe and connected cycling experience

3.a Local High Streets, High streets and High Roads that are accessible by cycle enable more people to travel to and spend time in them. They should be fully integrated into the wider cycling network, with good connectivity being provided to pedestrianised zones and public transport stops. **S4A Metric 38**

3.b Cycles will generally share the carriageway on High Streets, in compliance with requirements in the Streets for All Design Check. **S4A Metric 19, 20**

3.c High Roads should look to provide protected cycling facilities, or alternative parallel routes in compliance with requirements in the Streets for All Design Check. **S4A Metric 19, 20, 25, 39**

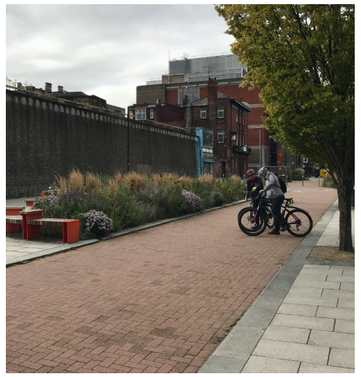
3.d Permitting considerate cycling within otherwise pedestrian zones should be considered on a case-by-case basis. Where heavy cycle flows are expected, formal protected provision through the otherwise pedestrian space should be provided. **S4A Metric 18, 26**

3.e If the location is in an area covered by schemes, provide cycle hire facilities at convenient locations to hire or return cycles.

3.f Provide ample short stay and long stay cycle parking at convenient locations. Cycle stands must have a tapping rail at 150mm above the ground. Include provision for non-standard and adapted cycles. **S4A Metric 34**

Contraflow cycle track.

Accessible cycle parking.



Two-way cycle track.

A reliable, integrated and accessible public transport network

4.a High Streets and High Roads are most easily accessed when they are served directly by buses, or trams, with conveniently located and fully accessible stops located on the street itself. **S4A Metric 48-51**

4.b Routes for walking and wheeling between bus stops, bus stations, tram stops and rail stations and pedestrianised streets and zones must be accessible for all, direct, legible, and intuitive. **S4A Metric 12, 17, 38**

4.c Wayfinding should be provided wherever the stops or stations serving a High Street are located other than on the High Street. **S4A Metric 17**

4.d Width of accessible through routes for people walking or wheeling on the footway past bus stops should be maintained. **S4A Metric 12, 48, 49**

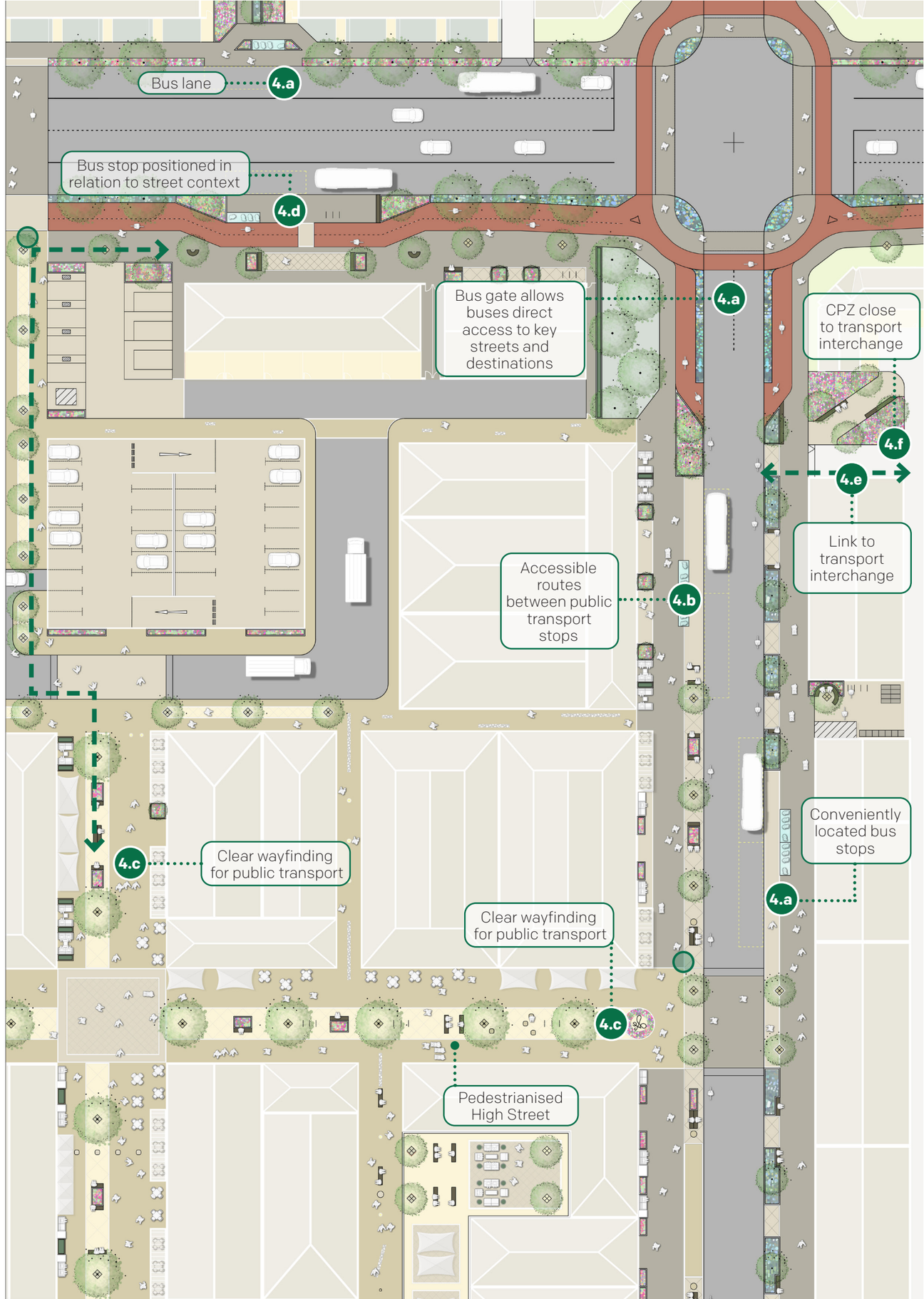
4.e The nature of facilities at bus stops on High Streets and High Roads should reflect the patronage, context and any interchange role, both between buses and between modes. **S4A Metric 43-54**

4.f Controlled Parking Zones (CPZ) may be appropriate for High Streets close to tram stops and rail stations, or where people might informally park and ride, connecting with buses.

High Street served by buses.

Metrolink tram stop.

Accessible bus stop.



Appropriate provision for goods and servicing

- **5.a** Rear, or similar, dedicated off-street facilities for servicing are preferred. **S4A Metric 30, 41**
- **5.b** Pedestrianised Streets should have limited hours for access by service vehicles. The appropriate hours will depend on use (e.g. deliveries for retail streets disallowed during daytime). Streets where the night time economy is predominant may restrict access in evenings. **S4A Metric 41**
- **5.c** Designated loading bays may be required on-street for High Streets and High Roads but must not compromise the required minimum widths, or width for desired level of service, of clear pedestrian routes. **S4A Metric 12**
- **5.d** Where loading bays are situated at the side of a street, consideration should be given to providing these at footway level, delineated by a change in surfacing materials and (with appropriate structural composition for vehicle loading) with chamfered kerbs, allowing the space to be used by people when not required for vehicles. **S4A Metric 41**
- **5.e** For Local High Streets where ad-hoc or short stay deliveries are required, loading or parking spaces on-street may be appropriate. **S4A Metric 30, 41**

Dedicated on-street servicing.

Pedestrian zone.

Limited access for servicing.

Making best use of limited street space

6.a The needs of those walking and wheeling, cycling, as well as buses, wheelchair accessible taxis and their users, must be considered first, and in this order. **S4A Metric 41**

6.b Off-street parking provision is the preferred option for High Streets.

6.c Where on-street parking exists, consideration should be given to reallocation of this space to walking, wheeling, accessible bus stops, seating / social space, parklets, or other enhancements to the public realm. **S4A Metric 12, 16, 34-36, 48**

6.d Where on-street parking is to be provided, this must not compromise provisions for walking and wheeling, cycling, or buses. Space for on-street parking should be prioritised for accessible Blue Badge parking **S4A Metric 12, 24, 48.** Consider implications of changes in parking provisions, including Blue Badge, on disabled people, or people less able to walk / wheeling long distances.

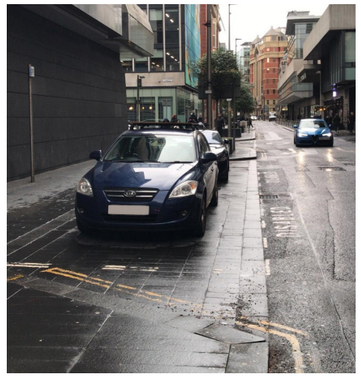
6.e On-street parking should generally be short stay, allowing a high turnover of use and custom, with long stay parking provided off-street.

6.f On-street parking, where provided, should be formalised, preferably sheltered (lay-by / build-out), and pavement parking prohibited.

6.g Resident Parking Zones may be appropriate in the streets surrounding town centres, to regulate parking and help ensure availability for residents.

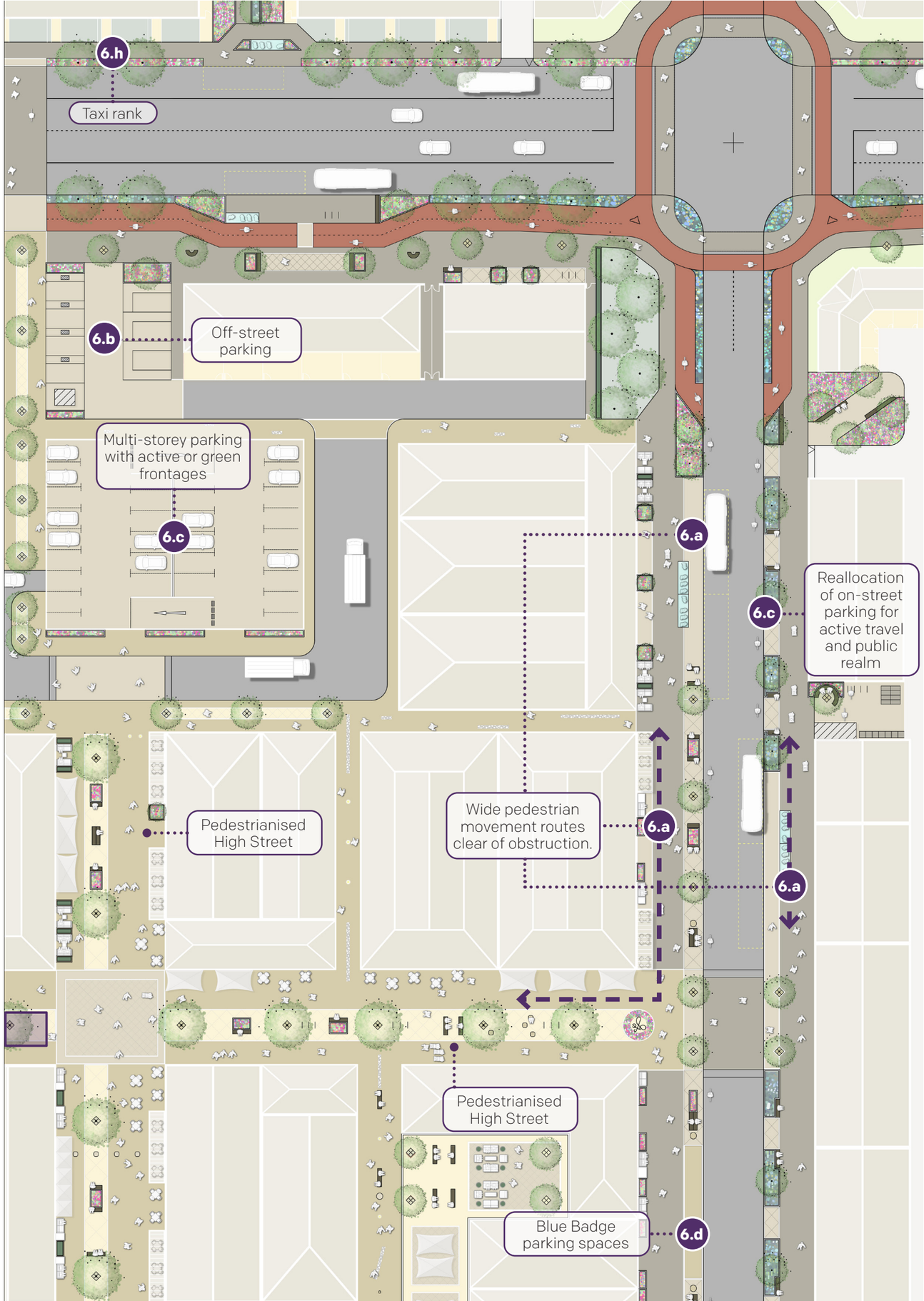
6.h Taxi ranks in close proximity to shops can be particularly important to supermarket shoppers and people purchasing other heavy or awkward goods which may be difficult to transport by public transport. Consider taxi rank provisions for the night time economy and instances where loading bays and taxi ranks can be shared.

Footway level taxi bay.



On-street Blue Badge parking bay.

Taxi rank at Manchester Victoria rail station.



A resilient and connected street network

7.a Shade from street trees is likely to become even more beneficial to High Streets. They provide cooling and shade, and support the attractiveness of High Streets in hot weather conditions versus air-conditioned spaces. **S4A Metric 15, 35, 36**

7.b High Streets can be transformed by multifunctional green and blue infrastructure into more attractive and climate resilient places. **S4A Metric 15, 35, 36**

7.c Public EV charging facilities should be provided in the vicinity of High Streets, preferably in off-street parking areas. **S4A Metric 12**

7.d Provide for shared mobility – cycle hire, e-scooter hire, car clubs. **S4A Metric 34**

7.e Materials should be easily maintained, with types and cost suited to location, including consideration of place in hierarchy of streets and spaces within High Streets and Town Centres. **S4A Metric 37**

7.f When selecting street furniture and materials, whole life costs should be considered from the outset, including maintenance and servicing. **S4A Metric 16, 37, 39**

7.g When locating street furniture such as benches and bins, consider issues of personal safety and potential for damage or antisocial behaviour. **S4A Metric 32, 33, 37, 39**

Permeable paving.

Shared mobility.

Street furniture integrated into SuDS features.

4.5 Destination Places and Gateways

Destination places and gateways come in many shapes and sizes, such as a market square, a park, or the route to a large venue or station. They are places where people come together or pass through. They should be safe and pleasant places to be in by day and night. They should be places to dwell.

Our Destination Places

This type of street type is purposefully wide ranging, and intended to be flexible in terms of use and application.

It could be used to refer to:

- A public square or marketplace
- A wider area such as a town centre or quarter
- Streets or quarters with concentrations of hospitality or night-time economy activity
- Streets or quarters with a particular character, materials palette, or vernacular
- Cultural destinations
- Approaches to, or area surrounding major event destinations
- Areas on approach to train stations or, tram stops
- Areas with concentration of on street-bus stops where people interchange between routes
- Parks

These design considerations are general in nature, and may not apply to every type of destination place or gateway. However there are some considerations which different places have in common.

Stanley Square, Sale.

Sportcity, Manchester.

Media City, Salford. Credit: Salford City Council.

Green, vibrant streets that are welcoming and safe places to spend time in

- Prioritise the movement and safety of people over vehicles.
- Be interesting and active places that are attractive places to spend time in and pass through.
- Provide safe and accessible places for people to children to play.
- Incorporate green space, shade and support biodiversity.
- Landscaping and material choices reflective of the local character.
- Active frontages with opportunities for spill-out activity.
- Boundaries between public and private space frontages are blurred (e.g. materials continue through from adopted highway through to building lines in front of retail or hospitality premises, with boundary markers).
- There should be places to sit, rest and meet.
- Opportunities for concealment of items, or people, should be minimised.
- Good sight-lines should be provided.

An inclusive and attractive walking and wheeling environment

- People of all ages and abilities should be able to walk and wheel in, and move through, these places.
- Clear pedestrian routes are well defined and kept clear of obstructions.
- Capacity of footways, footpaths, crossings and spaces should be capable of accommodating predicted flows, and take account of 'bump out' flows and dispersal for large capacity venues.
- Connections with or through to public transport stops and stations should be universally accessible. Where there is a separate accessible route and entrance to a destination place, or passing through a Gateway, this should be clearly signed.
- Where possible, controlled pedestrian crossings which will be used by high flows of people should be single stage (without splitter islands or refuges).
- Routes through these places should respect desire lines, and be intuitive.
- Traffic signage must accord with TSRGD and Traffic Signs Manual.
- At places with car parks, walking routes should be prioritised over car parking and circulation.
- Wayfinding can be in many forms e.g. fingerposts, totems, public art, surface materials
- Signage wayfinding should be accessible. In other words:
- Typeface selected should be clear and highly legible.
- Condensed, ornate or stylised typefaces should be avoided.
- Internationally recognised or DfT symbols should accompany text wherever possible.
- Appropriate tonal contrast (LRV difference) should be used.

A safe and connected cycling experience

- People of all ages and abilities should be able, and encouraged to, cycle to these places.
- There should be good connectivity to the wider cycle network.
- High quality cycle parking should be provided:
- At venues and stadia, or other similar places where longer or fixed/ predictable duration events occur, appropriate secure cycle parking provision should be provided.
- In informal destination places, where people stay for shorter, and variable periods, Sheffield stands, set in concrete, located in visible locations, but not interrupting pedestrian routes, should be provided.
- Cycle parking areas should provide for non-standard cycles such as cargo bikes and adapted cycles. Consider pop-up cycle parking for major events.
- It should be easier to access the destination from the cycle parking than it is from the car parking.
- If the place is within a cycle hire zone, there should be cycle hire facilities to return and hire bikes.

A reliable, integrated and accessible public transport network

- These places should be easily accessed by public transport.
- Tram and bus infrastructure should be designed to cater for large numbers of people, particularly at the end of events.
- Tram and bus infrastructure should be designed to enhance the public realm e.g. higher specification materials.
- Stops are conveniently located, such that it is easier to get to these places by public, rather than private, transport.
- Be easy for first time visitors to navigate between stops, stations and destinations.
- Stops should be conveniently located so that it is easier to get to these places by public transport than by private car.
- Facilities for taxis to set down and pick up may be appropriate.

Heaton Park.

Canal Street, Manchester.

Appropriate provision for goods and servicing

- Access for servicing should be provided and controlled in a way that is not detrimental to people using the space.
- Access for servicing should be signed and managed so that servicing and loading activities can be undertaken safely and potential conflict with other uses is minimised.
- Consideration of alternative delivery practices, such as off-peak, or outside event deliveries, alternative last mile fulfilment.

Making best use of limited street space

- Some destination places and gateways will be traffic free spaces; others may have traffic restrictions and controls, by time / type of vehicles / or access or permit holders only. This may include pre/post event closures of roads to general traffic.
- Manage car parking to provide the space needed for walking, wheeling, cycling, landscaping, seating, play, businesses, or community uses.
- For larger venues, or destinations, controlled parking zones may be appropriate in the surrounding streets.
- Provision for Blue Badge parking should be prioritised.
- Designers should balance placemaking with the need to provide for convenient public transport stops that are close to where people want to go.
- Support flexible use of space across different times of day (e.g. outdoor café seating; weekend / evening street closures).Where this occurs, accessible through routes should be maintained for people walking or wheeling, and – on cycle routes – people cycling, including use of adapted or cargo bikes, at all times.

A resilient and connected street network

- Minimise embodied carbon in material choices, which are suitable for the level and type of use and context.
- Incorporate SuDS features.
- Incorporate street trees to provide canopy cover and shading.
- Consider need for clear sight-lines for oversight, CCTV, safety.
- Avoid opportunities for concealment.
- Reflect local diversity and context.
- For crowded places, Hostile Vehicle Mitigation (HVM) and other associated measures may be necessary. Advice should be sought from Greater Manchester Police (GMP) at the outset. HVM measures should be designed sympathetically and integrated in the streetscape where possible, mindful of need to maintain clear accessible routes for people walking and wheeling, and provide for peak pedestrian flows.

4.6 Strategic Roads

Our Strategic Roads carry large volumes of traffic, and are crucial to the movement of goods and the economy. They should be cleaner, greener and easier to cross to reduce impacts on local communities. Junctions should be easy, safe and more pleasant to cross for people walking or cycling.

Our Strategic Roads

National Highways owns and operates the Strategic Road Network (SRN). In Greater Manchester, this includes our busiest roads in terms of motorised traffic. In Greater Manchester these include:

- Motorways (Mancunian Way excepted)
- A57 and A628 through Mottram and Hollingworth
- A663 between A627(M) and M60
- A5013 Princess Parkway

The SRN connects Greater Manchester with the rest of the UK, as well as providing for more local journeys. It is the backbone of the freight and logistics sector and a key factor in the success of the regional economy.

For all the benefits the SRN brings to Greater Manchester, it is too often a barrier to movement for people walking, wheeling and cycling, and cuts through communities.

Although this guide does not apply to the SRN itself, the design principles set out in this section can be applied at junctions with the local street network, for crossings of the SRN away from junctions, and those stretches where properties directly front onto the SRN.

At junctions between the local street network and the SRN, facilities for people walking, wheeling or cycling are often poor. They can be unintuitive, hidden away, indirect, or in some cases absent. In some locations, people have to cross slip roads on uncontrolled crossings. These slip roads are often multi-lane, and traffic speeds and volumes are high.

People often need to cross through these junctions to reach local public transport stops and stations, Destination Places and other services. Buses often get delayed by large volumes of traffic joining or leaving the motorway.

Use of Design Manual for Roads and Bridges Geometry

Use of DMRB is a National Highways requirement for schemes upon their network. DMRB geometry is generally not suited for use on the local street network. Exceptions to this might include connections with, and within major industrial areas, high speed roads (50mph+) or other streets with large volumes of Heavy Goods Vehicles.

Even in such cases, the Streets for All approach should be applied in relation to provision for walking, cycling and public transport. For example, for schemes or areas which are designed to DMRB geometry, including standard lane widths of 3.65m, protected cycle facilities or alternative parallel routes must be provided.

Application of the Streets for All approach can help in achieving a better balance between motor vehicles and other users of these busy locations.

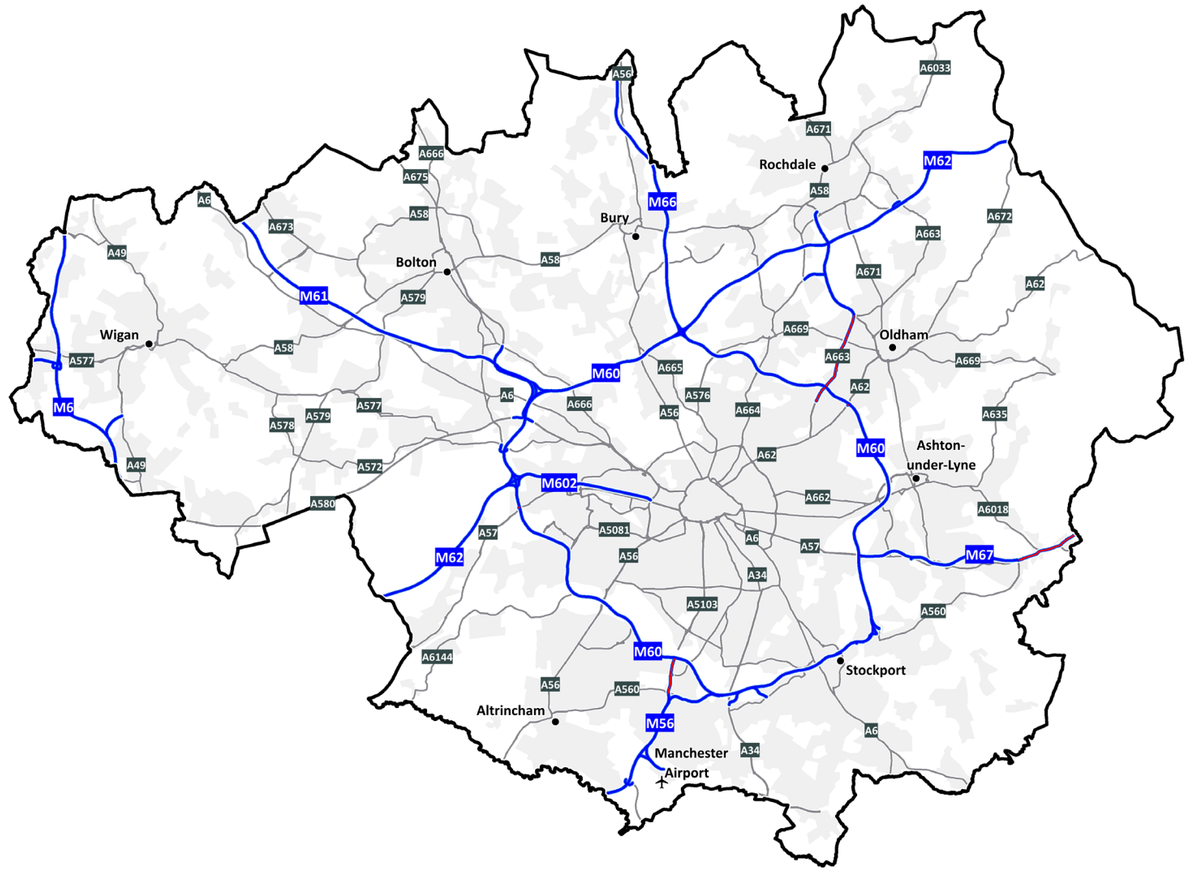


Figure 4.1

5. Applying the Streets for All approach

5.1 Introduction: Applying the Streets for All approach

This chapter uses existing streets in Greater Manchester to apply the Streets for All approach through worked examples where the street is first improved and then transformed.

The chapter covers:

- Neighbourhoods
- Local Connector Street
- Connector Street
- Multi-Lane Connector Street
- High Street
- High Road
- Destination Place
- Gateway

'Improve' encompasses lower cost measures and interventions that might be introduced without significant engineering, excavation and using standard materials. 'Improve' schemes could be rolled out more widely and more quickly.

Some of these elements highlighted in the 'improve' examples could be classed as, and implemented through, business as usual activity. These were raised in the development of the guide as issues people face using our streets, many of which could be addressed through business as usual activity, such as footway repairs or resurfacing, routine removal of vegetation encroachment, clearing of drainage gullies.

'Transform' includes more expensive measures, including realignment of kerbs or amendments to drainage, and opportunity to use higher-specification materials. 'Transform' schemes could be delivered in phases, where 'Improve' is the first with the vision to 'Transform' in the longer term.

'Improve' schemes can be delivered independently, or as a stepped approach to longer-term delivery of a 'Transform' scheme. Similarly, a 'Transform' scheme in one phase without a preceding 'Improve' scheme.

For the purposes of the illustrations, existing features of the street have been compressed into a short section for illustration purposes, and additional features and issues introduced. As such, the representations are not to scale, and distances between features along the streets must not be inferred as advice, or suggestion. The measures introduced in improving and transforming the street are **not templates for design**.

Fundamentally, there is no one single "right answer" for any street or any context. Designers must take account of the context and weight given to importance of functions, users and uses in the design process.

Streets for All design requirements set out in Chapter 3 apply in all cases.

The information in this chapter should be used in conjunction with the latest version of the Streets for All Design Check.

5.2 Neighbourhoods

This is a typical Neighbourhood which has different housing types and streets, from grids of terraced houses to semi-detached properties in post-war infill cul-de-sacs. Local Connector Streets and Connector Streets provide connections around and beyond the neighbourhood. There are primary and secondary schools, local shops, a medical centre and parks, as well as frequent bus and tram services.

Existing street context

Existing street context

1 Getting around and beyond the Neighbourhood

The streets in this neighbourhood are unwelcoming and do not support people getting around by walking, wheeling and cycling. Lack of flush kerbs and tactiles at crossings, narrow or obstructed footways, wide junction radii and poor condition of footways contribute to this.

Undulating footways at dropped kerb vehicle crossovers to driveways cause issues for people using wheelchairs, other mobility aids, ambulant mobility disabilities such as gait issues, and buggies. At these crossovers, design priority is given to motor vehicles to travel across the footway, to the detriment of providing universal accessibility for people passing along them.

Connections across busier roads to other parts of the neighbourhood and to public transport are poor.

2 Signalised junctions

Some of the large junctions have no pedestrian facilities, whilst others do not have provision on every arm. There are multi-stage or staggered crossings and extensive use of guardrailing narrowing usable footway width. Pedestrians have to wait a long time to cross.

3 Through traffic

Some of the local streets within the neighbourhood are heavily used by through traffic. In some cases, this is due to shorter distances or to avoid congestion on Connector Streets.

4 Quality of public realm

The streetscape is low quality and the public space around the local centre does not reflect the vibrant community and rich history of the neighbourhood. There is little public space to socialise or spend time. There is a weak visual and perceived connection between local amenities.

5 On-street parking

Areas of the neighbourhood have terraced housing, with no off-street parking. There are no formalised on-street parking spaces for motor vehicles or cycles. On some narrow streets, vehicles park on the footway. This causes an obstruction on the footway, which is a particular issue for people with reduced mobility, people with buggies, young and older people. People using the tram park in streets near to the tram stop.

6 Getting to school

At drop-off and pick-up time, school entrances and surrounding streets become very busy with traffic of all kinds. Many children are dropped off or picked up by car, as close as possible to the gate, causing congestion. This causes localised pollution around the school and discourages people from walking, wheeling, or cycling to and from school.

7 Access to public transport

Getting to and from some public transport stops by walking and wheeling can be difficult, particularly where you have to cross a busy road and there are no controlled crossings. Some bus stops have low kerbs and insufficient space for wheelchair users to board and alight using a ramp. There are some cases where there is not enough clear through width for people passing by.

8 Parks and green spaces

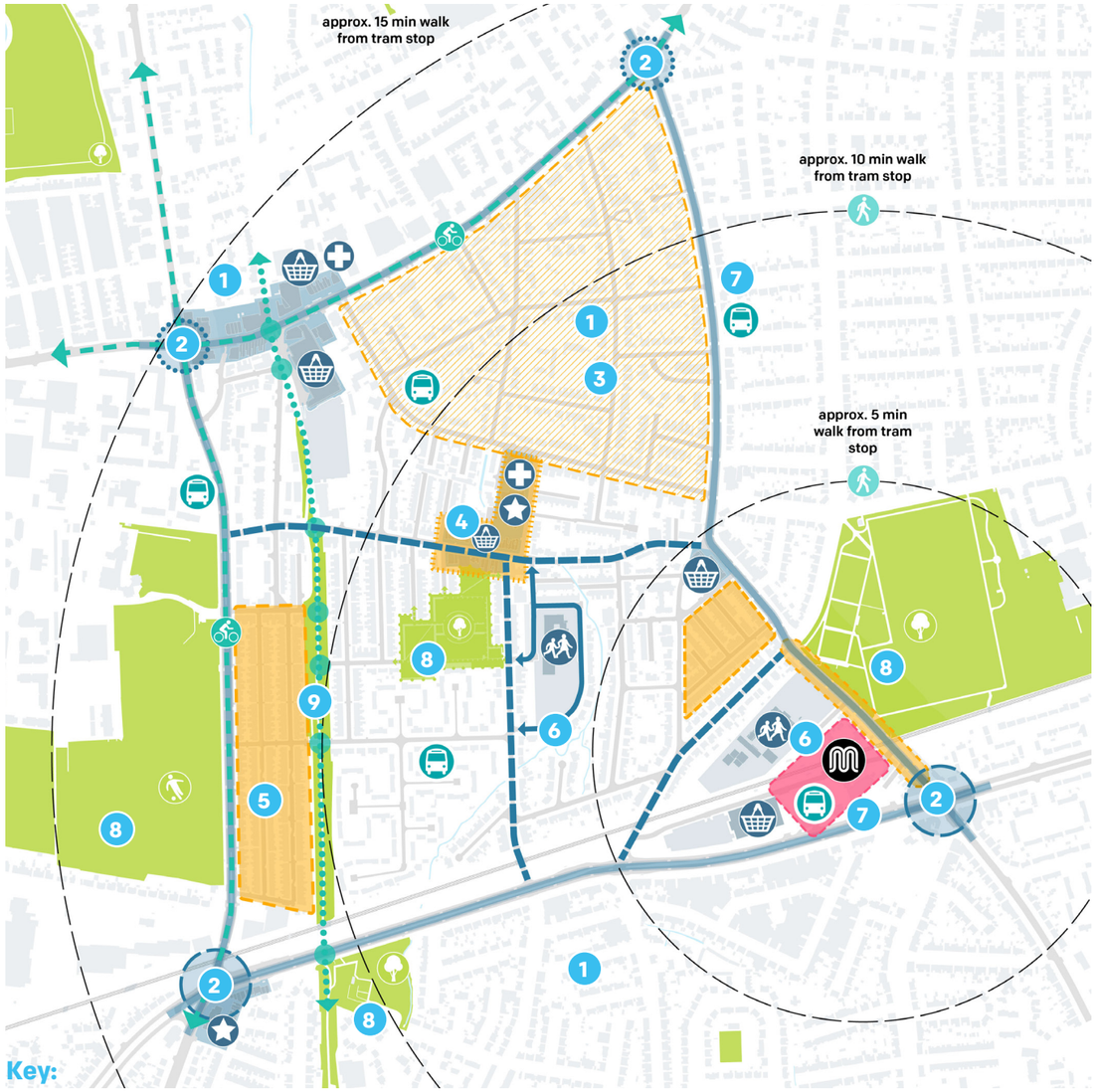
Parks and playing fields in the neighbourhood are hidden away and feel disconnected and hidden from the street network. There are no pedestrian crossings near park entrances. Children rarely travel independently to the park. Where there are green spaces, they are largely grassed with limited biodiversity value and no drainage role. Grass verges in many places have been churned up by parking. There are few street trees.

9 Poorly connected active travel greenway

The greenway corridor is popular, particularly with cyclists. It is poorly connected into the neighbourhood, with one stepped and secluded access point. There are access barriers along the route to deter use by off road motorbikes, however these prevent people using cargo or adapted cycles from enjoying it.

The greenway is unlit, meaning it has a largely leisure use. People report feeling unsafe using it in hours of darkness. There are few places to stop and rest.

Improve and transform a Neighbourhood



Improve and Transform a Neighbourhood

1 Getting around and beyond the Neighbourhood

- Flush kerbs or raised crossings at side road junctions with correct tactile paving.
- Tight junction radii.
- Repair or resurface footways where needed.
- Use of Dutch access kerbs at vehicle crossovers to maintain consistent footway height for people walking and wheeling.

2 Signalised junctions and crossings

- Provide pedestrian signals on all junction arms.
- Crossings are designed to enable people to cross the road in one go.
- Shorter wait times for green man and allow more time for people to cross the road.
- Controlled crossings across busier roads on key pedestrian desire lines.
- Convert pelican crossings to puffin crossings to prioritise pedestrians and reduce wait time for motor vehicles if someone has crossed before the green man.

3 Through traffic

- Localised narrowing of the carriageway.
- Rationalise / formalise on-street parking with build-outs/chicanes.
- Consider localised modal filters / point closures, banned movements at junctions, one-way streets, or access only.

4 Quality of public realm

- Provide benches, lighting and enhance public realm at focal points where people gather.
- Enhance sense of place through public art, community planting / gardens.
- Improve wayfinding within, and to destinations beyond, the neighbourhood.
- Use green and blue infrastructure and local landmarks to improve legibility.

5 On-street parking

- Formalise on-street parking bays by introducing build-outs at junctions and along the street.
- Alternate on-street parking on either side of the street to avoid long clusters of parked cars.
- Break up on-street parking with trees, low-level planting and rain gardens — particularly near to junctions. These spaces can also be enhanced with seating and informal playing features.
- Install accessible, secure, sheltered cycling storage in residential areas. For example, cycle hangars provide safe space to store bikes and scooters, offering on average up to six bike spaces within the footprint of a single parking bay.

6 Getting to school

- Consider introduction of School Streets which prevent through traffic past schools at either end of the school day. Residents, local businesses, blue badge holders, as well as the emergency services can still maintain access to the streets. Consider use of ANPR enforcement for moving traffic offences.
- Introduce 20mph speed limit.
- Implement wider streetscape enhancements to emphasise the presence of the school, including signage, public art and change of surface materials.

7 Access to public transport

- Controlled crossings to provide access to bus stops, tram stops and rail stations.
- Provide universally accessible bus stops for people boarding, alighting, waiting and passing by along the footway.

8 Parks and green spaces

- Provide crossings on desire lines to park entrances encouraging people to walk, wheel and cycle to the park rather than drive.
- Introduce multi-functional connected green and blue infrastructure.

9 Greenway

- Make access points and the greenway accessible to all.
- Implement appropriate cut-back and management of planting for visibility
- Install ecologically-sensitive lighting along the route.

5.3 Local Connector Street

This Local Connector Street is a typical Victorian terraced street with residential frontage on both sides along much of its length. The cross section is quite narrow. There is no off-street parking and on-street parking is uncontrolled. It is served by buses every 30 minutes.

Existing street context

1 Street layout

Long straight street with uninterrupted views forward which encourages high speeds. The street is dominated by hard surfaces. Asphalt surface in need of repair.

2 Side road crossings

No flush kerbs or tactile paving. Some side road junction radii are already tight as is typical of terrace streets. One of the side roads lacks a footway on one side and the mouth of the junction is excessively wide.

3 Bus stop

Parked cars obstruct the bus stop because there is no bus stop clearway. The bus cannot pull into the kerb meaning it can't deploy wheelchair ramp, slowing down boarding.

4 On-street parking

There are no formalised on-street parking spaces for motor vehicles or cycles. No parking controls and vehicles park on the footway. On this street, this is a particular issue for buses, causing delay and unreliability. Indiscriminate parking causes visibility issues for drivers emerging from the junction.

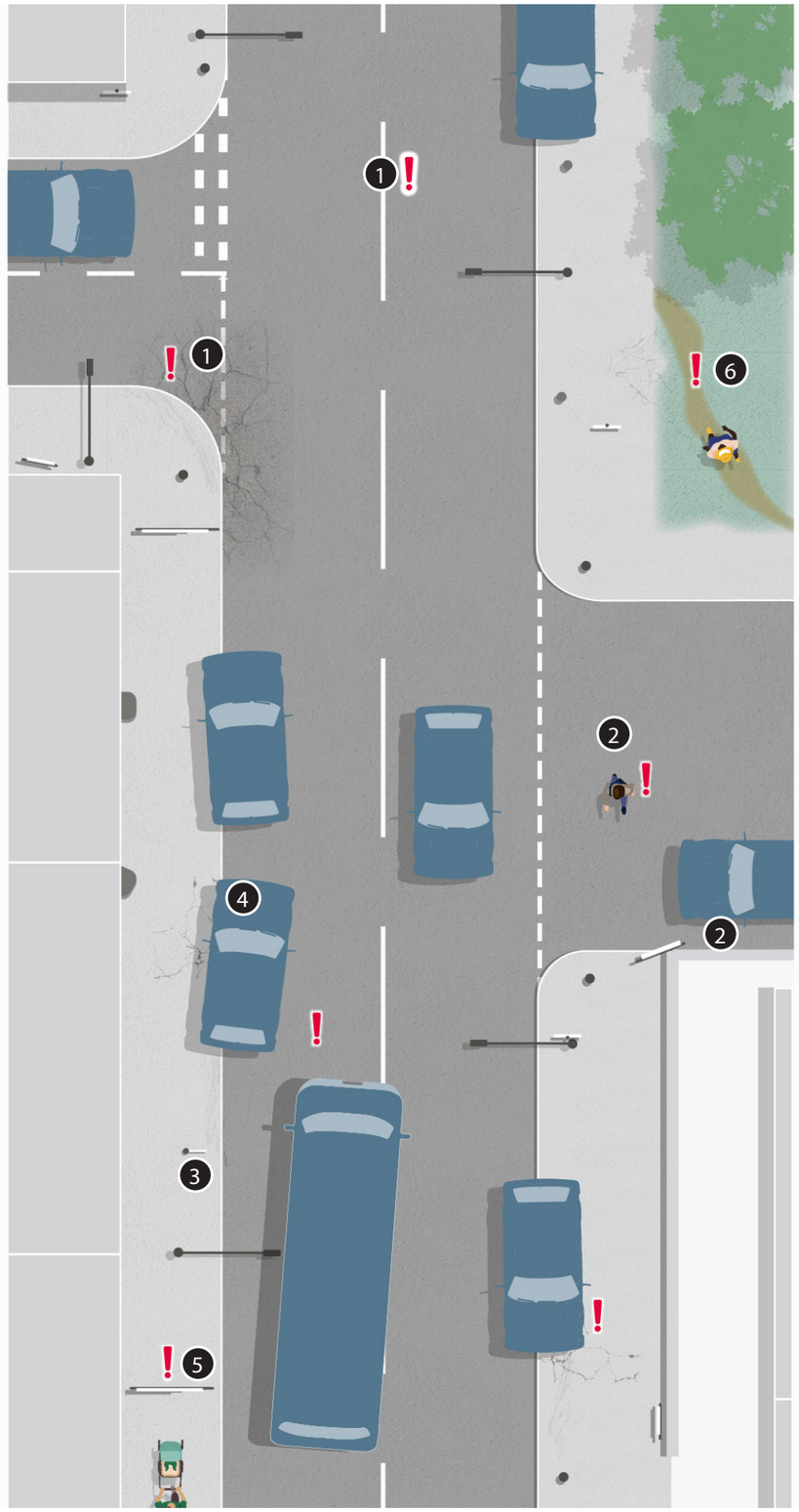
5 Street clutter

Lighting columns are irregularly distributed. Placement and type of signage, guardrailing, bollards and utility cabinets restrict footway widths below minimum standard.

6 Local green space

Small local green space is uncared for and does not provide any useful function. Suffers from fly tipping. It is used as a short cut but there is no formal path.

Existing street context



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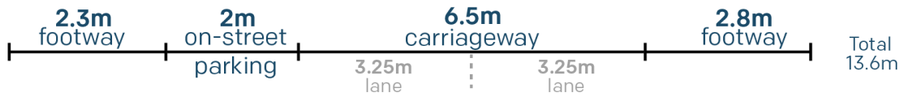
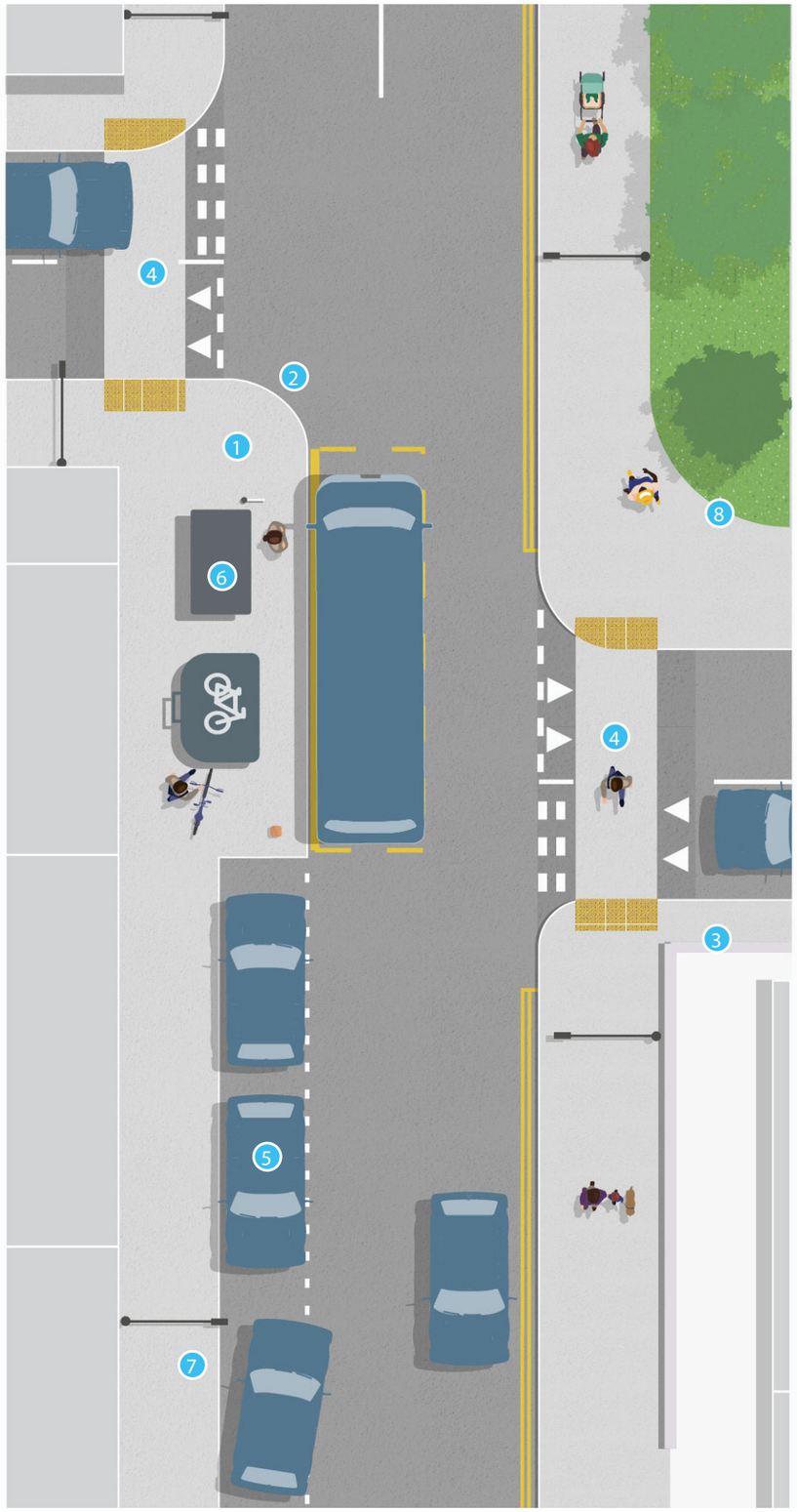
Improve the street



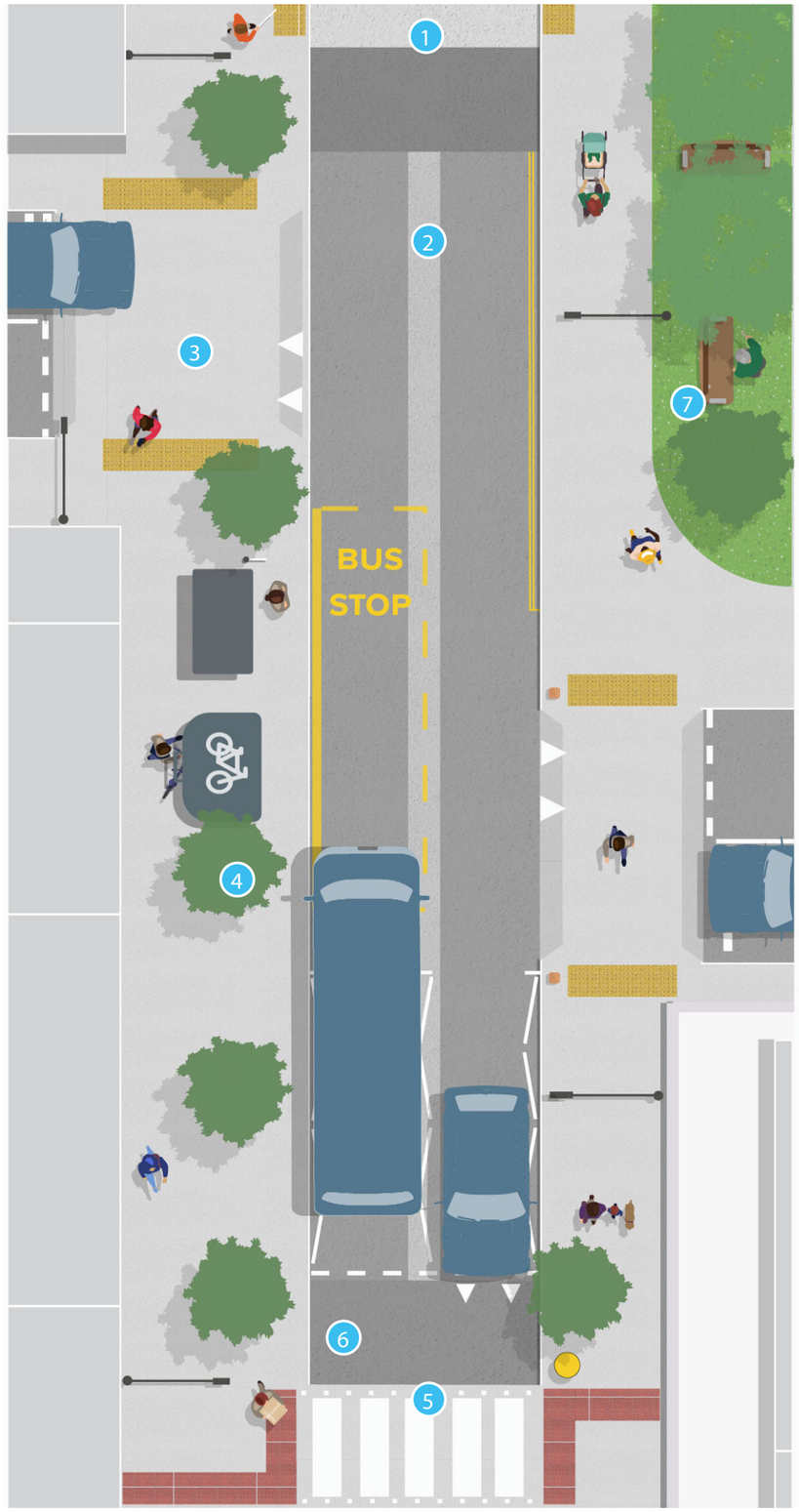
1. Trees, planting, build outs, alternating parking break up the uniform linear street.
2. Asphalt surface repaired. Consider removal/ non-reinstatement of centre line markings where appropriate.
3. Footway provided to right side road, and excessively wide carriageway reduced.
4. Raised entry treatments to side roads to footway level, using hot rolled asphalt, with tactile paving.
5. Formalised on-street parking. Build-outs added to divide parking area, provide informal crossing points.
6. Bus stop build out within formalised parking, and shelter with accessible seating. Clearly defined boarding point. Secure cycle hangar.
7. Footways repaired, unnecessary street clutter removed. Sign remounted on single offset pole.
8. Local green space tidied up and footway widened to accommodate pedestrian desire line.



Not templates for design.

Transform the street

1. Raised tables introduced across carriageway additional courtesy crossings across the primary carriageway.
2. Carriageway resurfaced. Central strip using low cost and low maintenance materials added, such as imprinted asphalt, in key locations to visually narrow the street.
3. Continuous footways installed across side roads, with material continuity with pre-cast entrance kerbs either side of raised area, tactiles to footway, so people, particularly visually impaired or with cognitive differences.
4. Trees can be what turns a road into a street. SuDS enabled street trees and rain gardens, and community planting / garden. Drainage and gullies adjusted to new kerb lines and build outs.
5. New partially raised zebra crossing to enhance safe cross-street pedestrian movement, located on desire line between the side roads on each side. Gradient and length of raised tables across the street optimised for buses.
6. On-street parking reduced, and located on alternate sides of the street (beyond limits of plan).
7. Accessible seating provided within green / public spaces, to create social spaces and provide places to rest.



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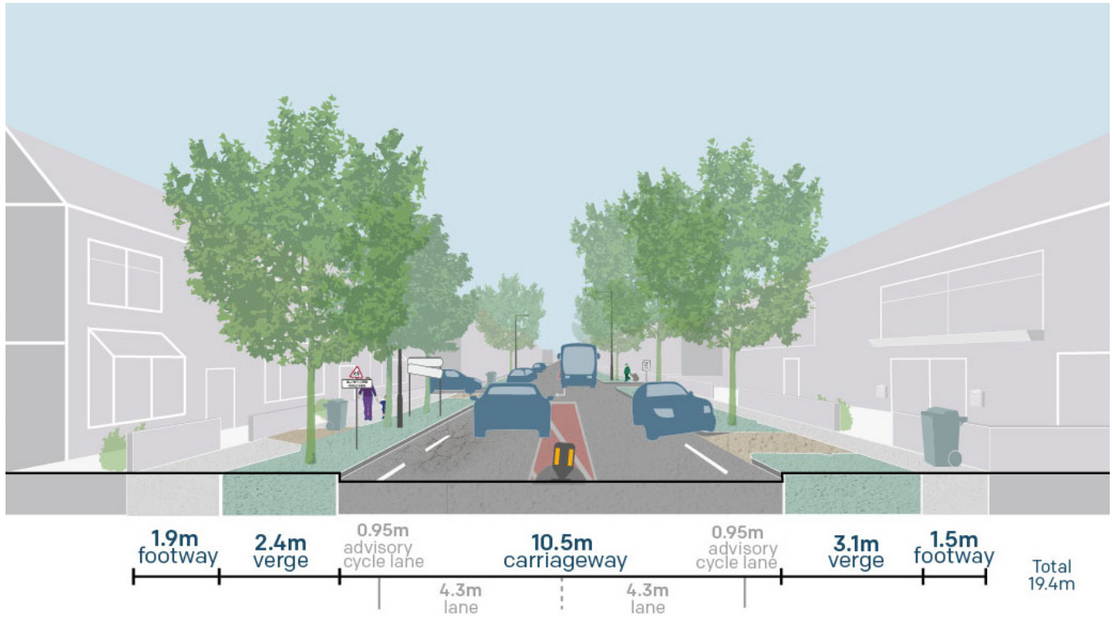
5.4 Connector Street

This street is a typical inter-war estate connector street, lined with mature trees and grass verges. Residential properties are set back from the road with front gardens and driveways. Many properties have paved over their front gardens to provide more parking. Traffic levels are moderate. The street is served by buses every 12 minutes.



Existing street context

1 Street layout

Street layout does not respond to residential context. Ghost island with right turn pocket, protected by refuge island. Hatched area has a red overlay beneath the hatching, which has faded and worn significantly.

Surface defects — pot holes and sunken gullies — present a safety issue to all users. Ponding issue is common in heavy rain and storms.

2 Pedestrian environment

Footways are narrow, uneven and cracked paving, with infill asphalt repairs. Wheeled bins are often left out on the footway, to the extent some residents report they do not venture out of the house on bin collection day.

The refuge island is not wide enough to accommodate people pushing buggies, or a wheelchair user, or a mobility scooter. There are no accessible paved landing areas.

3 Cycling along the street

The narrow advisory cycle lanes are neither wide enough — forcing cyclists into the gutter and over gullies, which are not cycle friendly — nor provide and protection for cyclists. They disappear for the length of the ghost island pinch point.

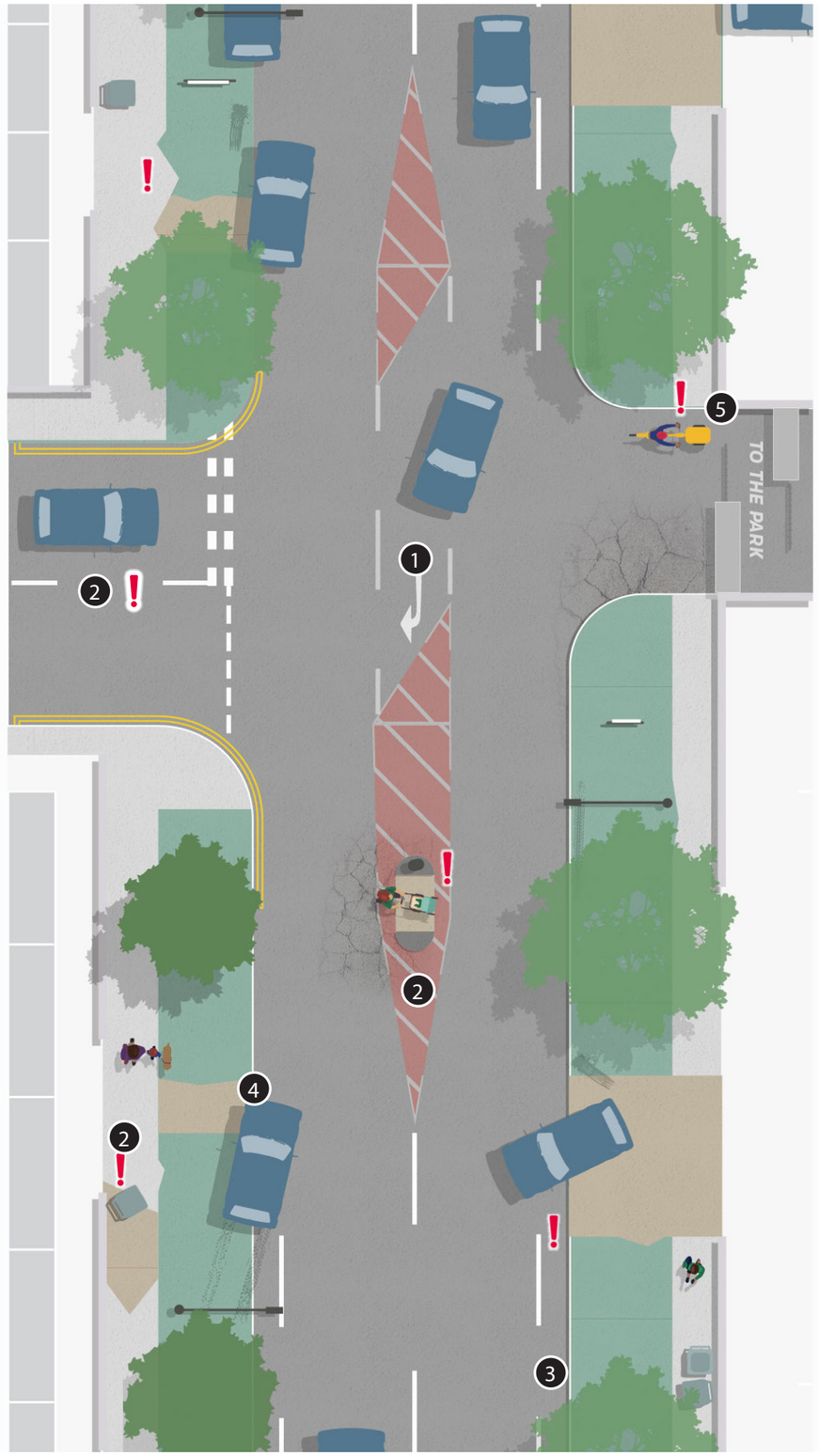
4 Parking

Uncontrolled parking by residents and visitors to the park. Cars park up on the verges. All properties have private driveways.

5 Access to the park

There is access to a popular park, which also provides a walking and cycling route through to a large secondary school and community hub to one side of the road. There are access control barriers at the entrance to the park, making it inaccessible for mobility scooters, adapted or cargo cycles.

Existing street context



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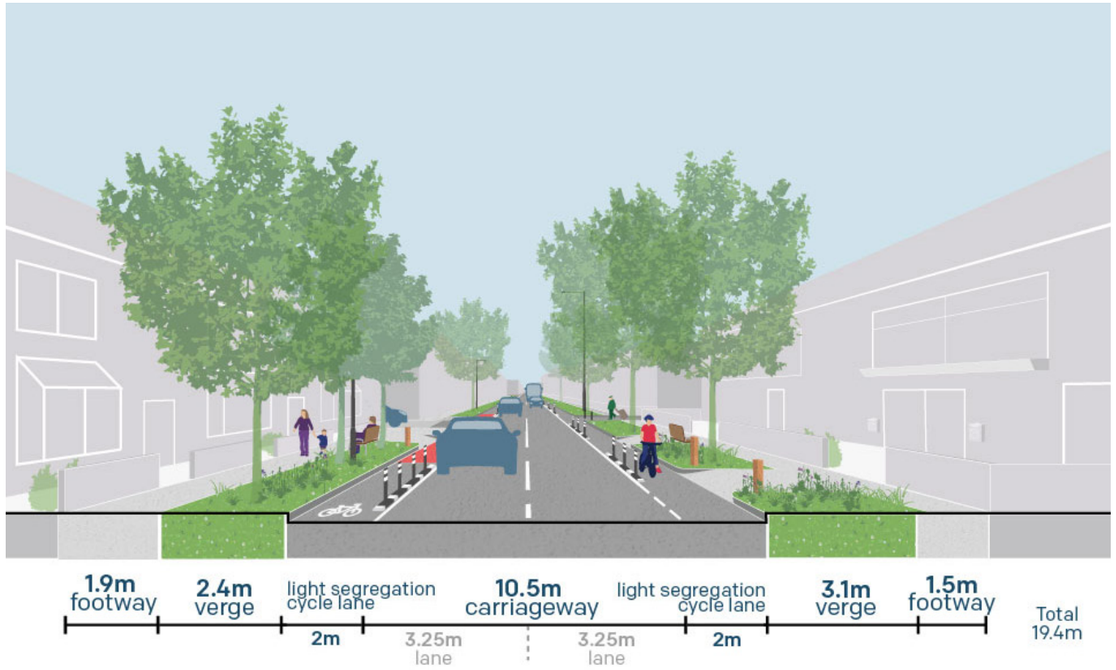
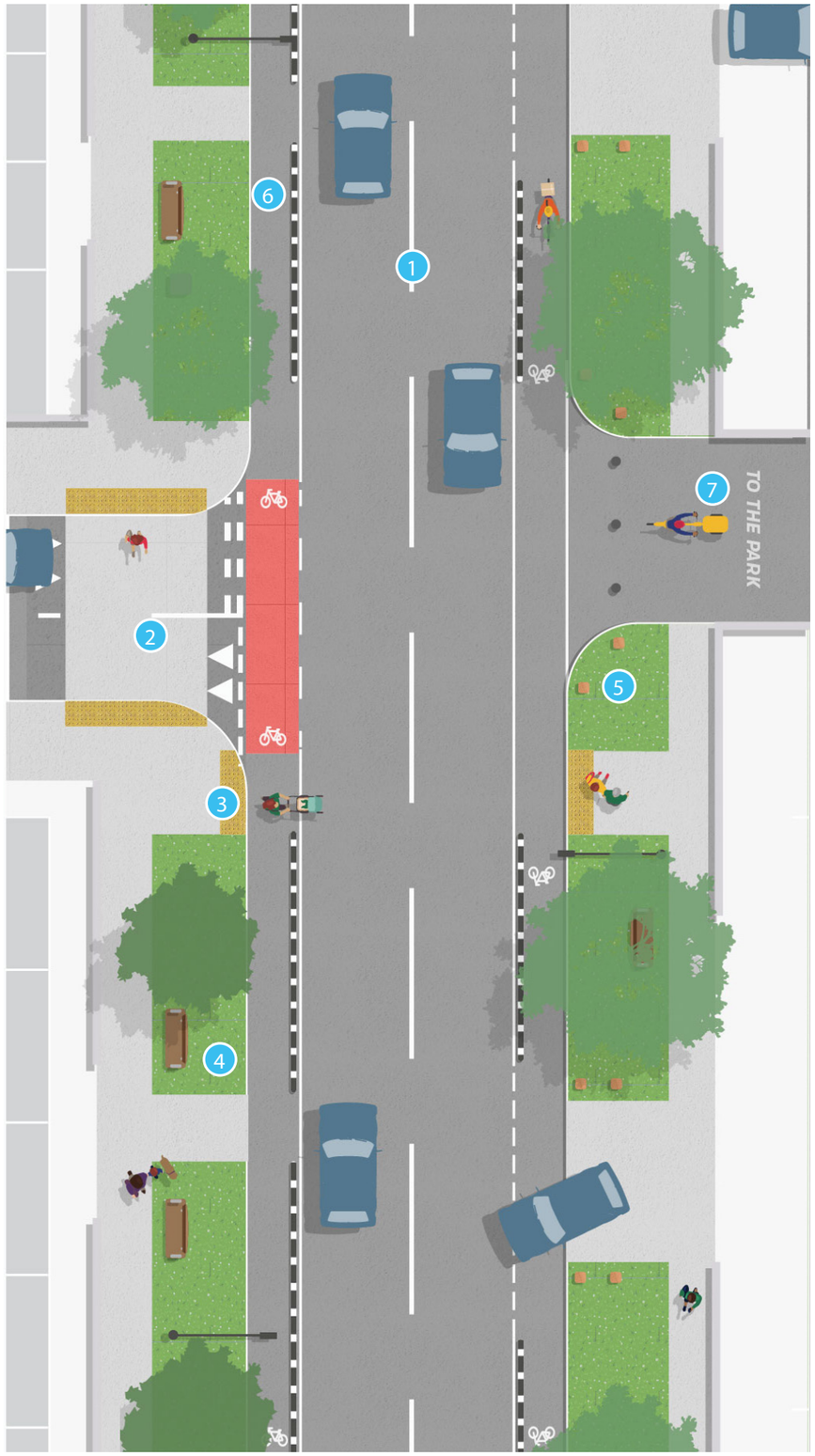
Improve the street



1. Ghost island removed — given this is a restricted road in a built up area with small number of vehicles making right turns.
2. Asphalt raised table at side road junction.
3. Uncontrolled crossing point.
4. Verges upgraded with low maintenance wildflower planting, to enhance local biodiversity, and seating.
5. Bollards / planters installed on verges and grassed corners to discourage parking.
6. Light segregation creates protected cycle lane. Consider which type of light segregation is most appropriate and how the carriageway and cycle lane will be maintained e.g. swept, gullies cleaned, resurfaced.
7. Park access made universally accessible.

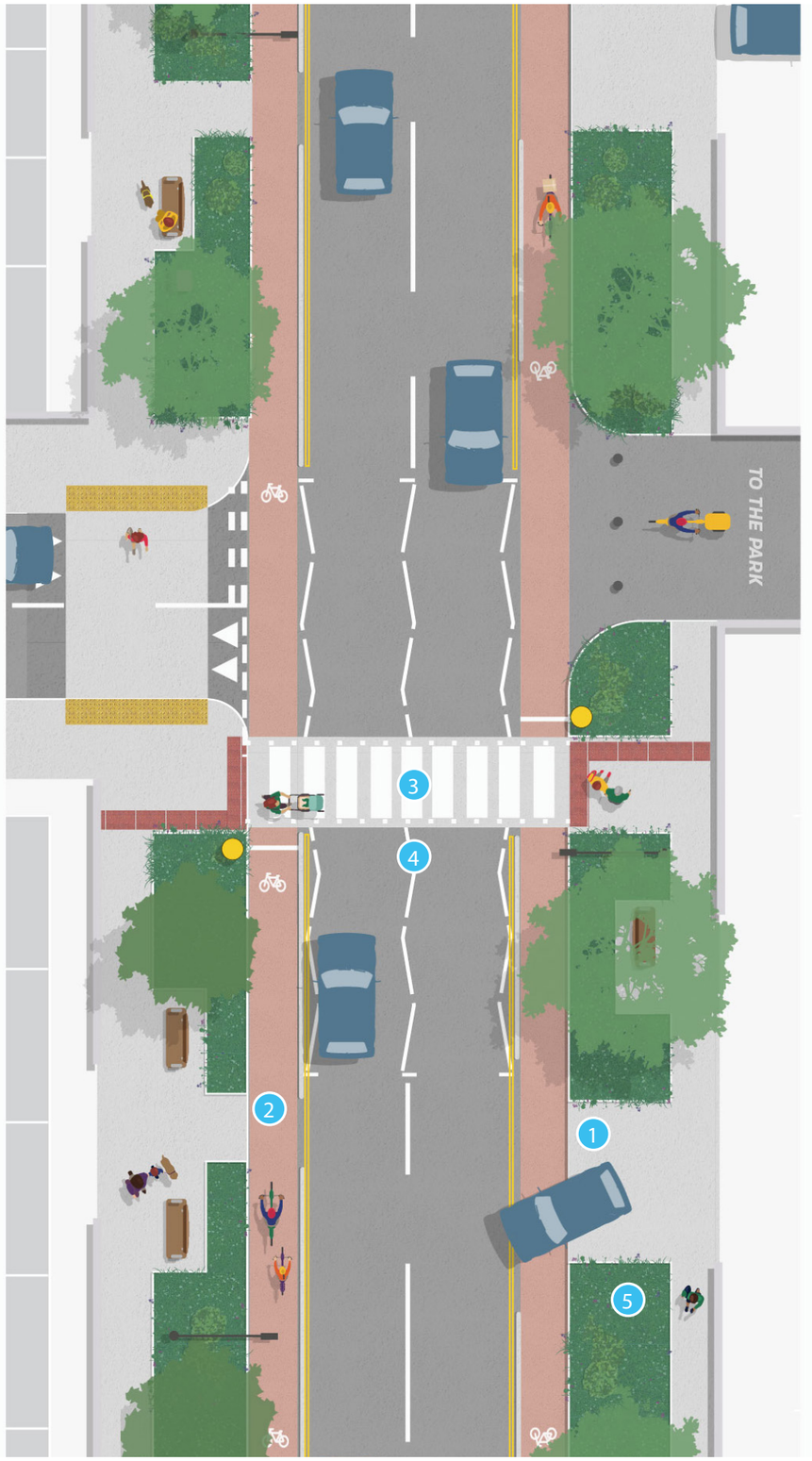


Not templates for design.

Transform the street

1. Carriageway and footway fully resurfaced and vehicle crossovers formalised with footway continuing through at uniform level.
2. Kerb protected cycle track.
3. Zebra crossing on desire line to the park "Any crossing should be located as near as possible to the desire line — that is, the route that pedestrians want to, and do take, which is not always the same as where a designer may wish to place it."[1]
4. Future opportunity to upgrade to parallel crossing to better facilitate cycle access to the park.
5. Rain gardens and SuDS enabled street trees as a nature-based drainage solution to remedy ponding issues.

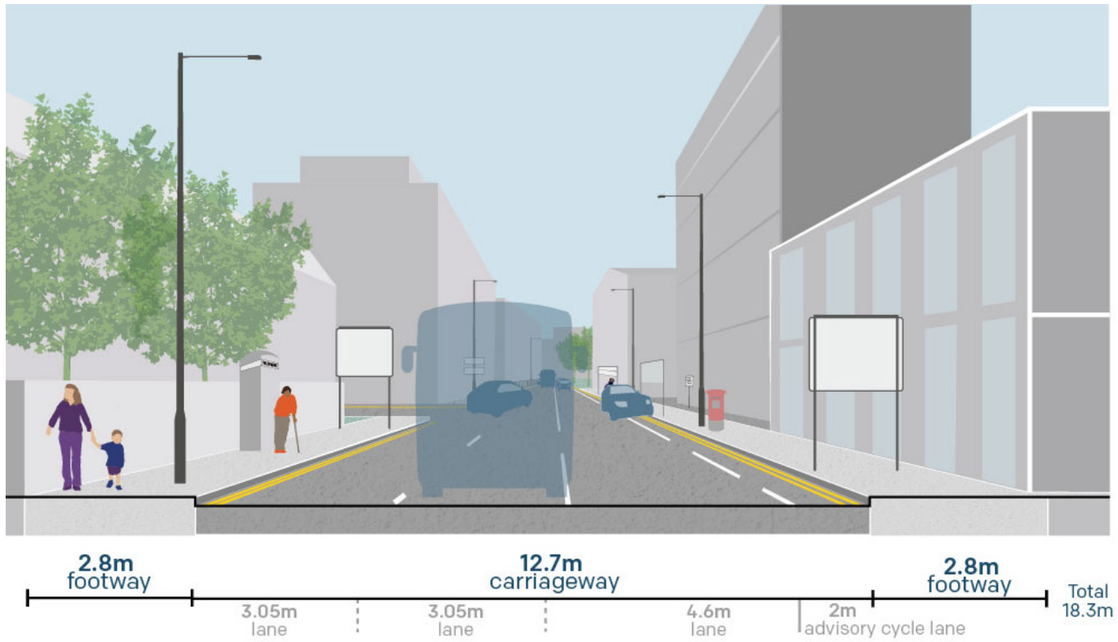
1 DfT (2019) Traffic Signs Manual 15.4.1



Not templates for design.

5.5 Multi-lane Connector Street Wide

This street is an example of an inner urban connector street in a former industrial area which has developed in recent years with apartment blocks and offices and local amenities. It is heavily trafficked with a strong peak tidal flow. The street is served by buses every few minutes in each direction.



Existing street context

1 **Street layout**

The allocation of space in the carriageway cross section does not make best use of the available width. The amount of signage is confusing to drivers.

2 **Pedestrian environment**

Although the footways seem wide, the number, placement and type of traffic signage, guardrailing, lighting columns, bollards and utility cabinets mean people walking and wheeling have to 'slalom' around street furniture. There are no controlled crossings. Kerbs at side road crossings are not flush and there is no tactile paving.

3 **Cycling along the street**

There is an imbalance of cycle provision. On one side of the street cyclists have no dedicated provision and share narrow lanes with heavy traffic. On the other side of the street, there is a narrow advisory cycle lane which offers no protection and is blocked by illegally parked cars.

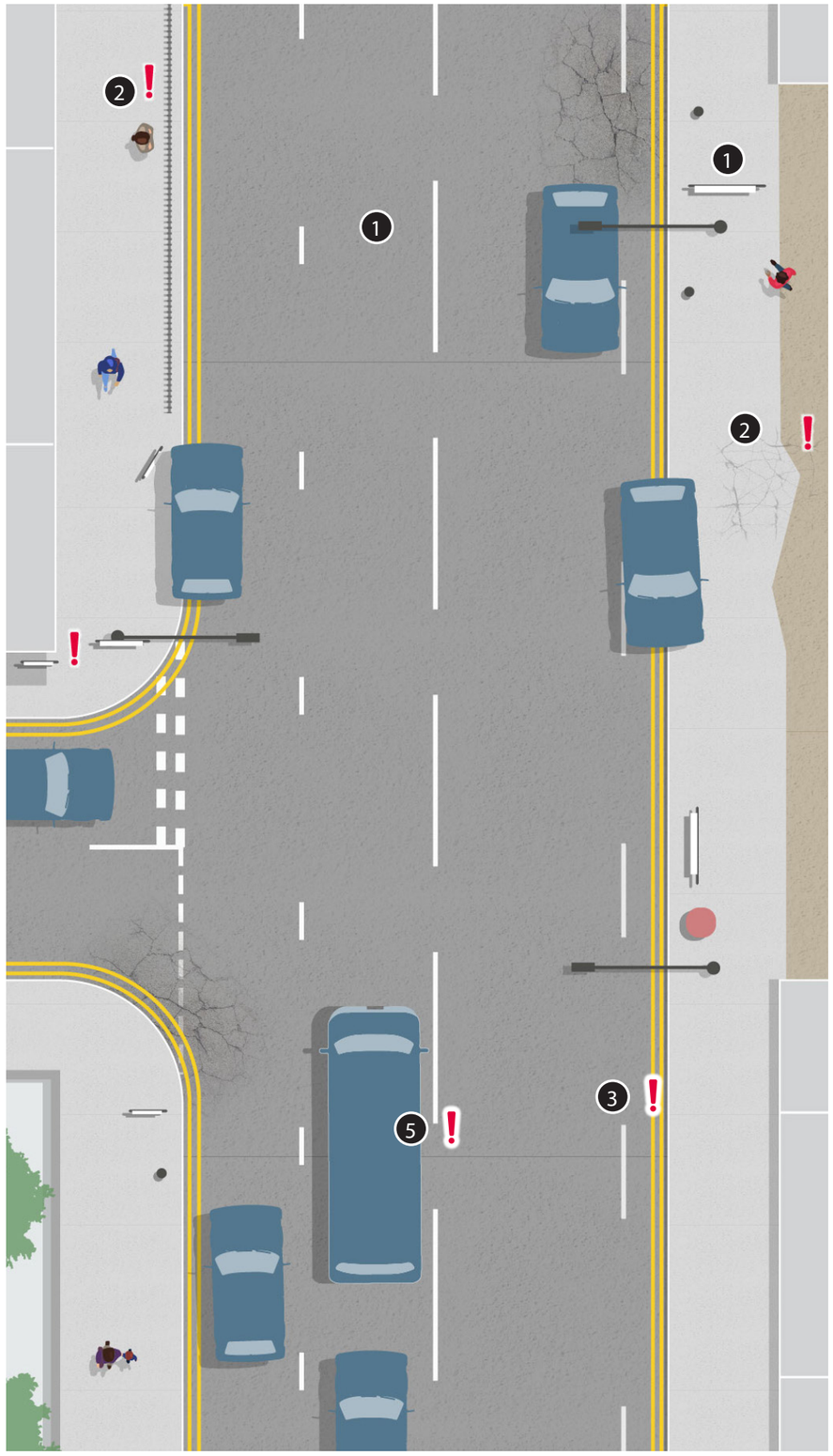
4 **Parking**

Although there are double yellow lines throughout, cars often park for short periods. This causes traffic congestion and delays to buses.

5 **Buses**

Despite the high number of buses using the street, there are no bus lanes. Buses experience severe delay particularly at peak times.

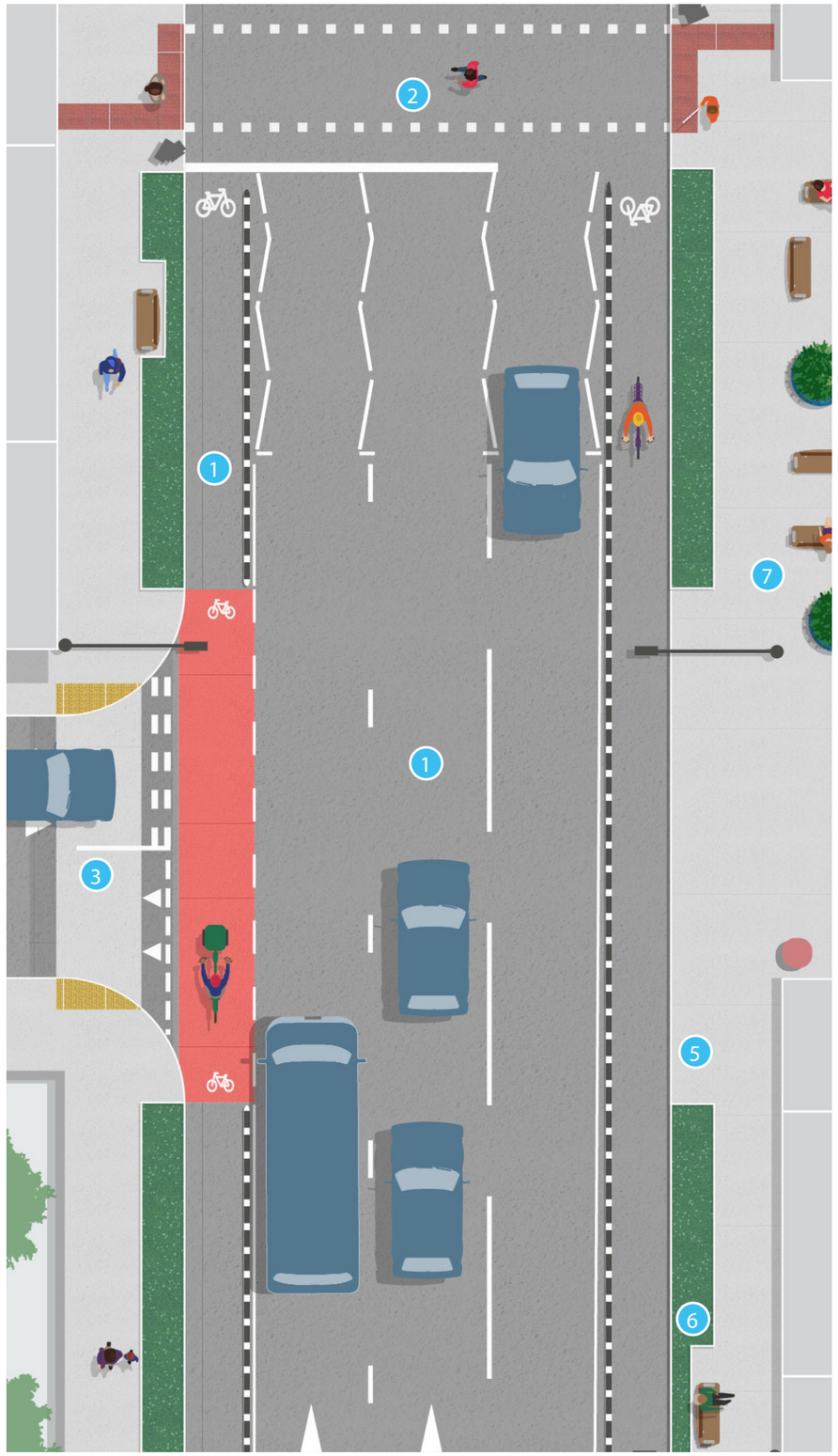
Existing street context



Not templates for design.

Improve the street

1. Space within the cross section reallocated to provide room for light protected cycle lane whilst having minimum impact on general traffic capacity.
2. Controlled pedestrian crossing allowing people to cross the street in one go.
3. Side road junctions redesigned with tighter radii, raised entry treatment and tactile paving.
4. Rationalised signage and realigned lighting columns and street furniture to provide clear pedestrian route.
5. Reduced and redesigned signage simplifies things for drivers.
6. Narrow strip of SuDS rain gardens provide a buffer between carriageway and footway and break up the hard landscape.
7. Installation of planting and seating to promote the use of public space and increases natural surveillance.



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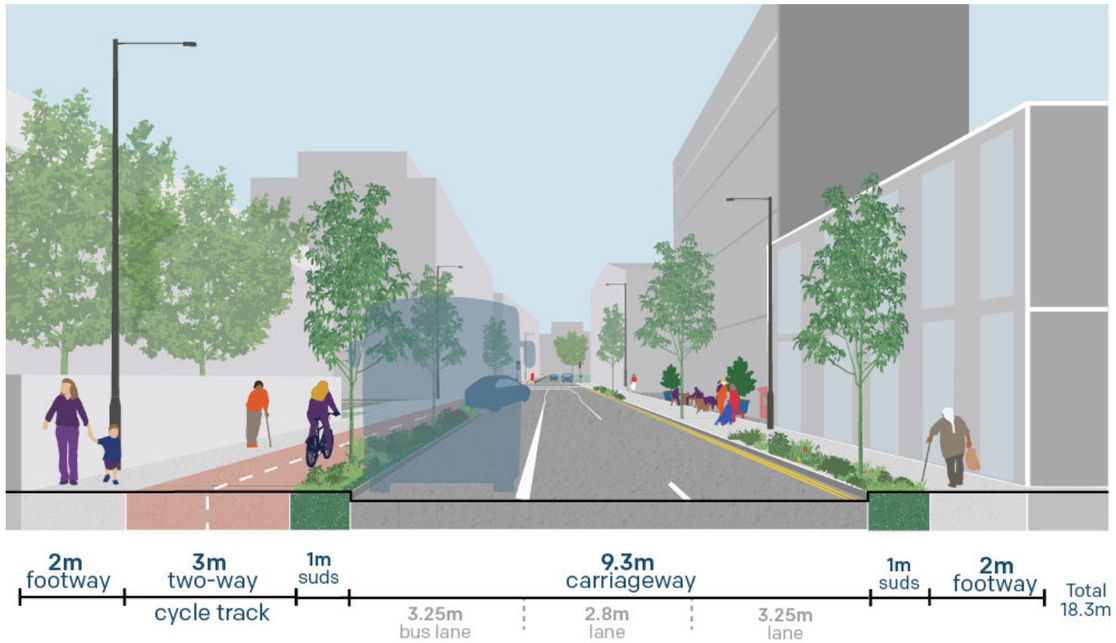
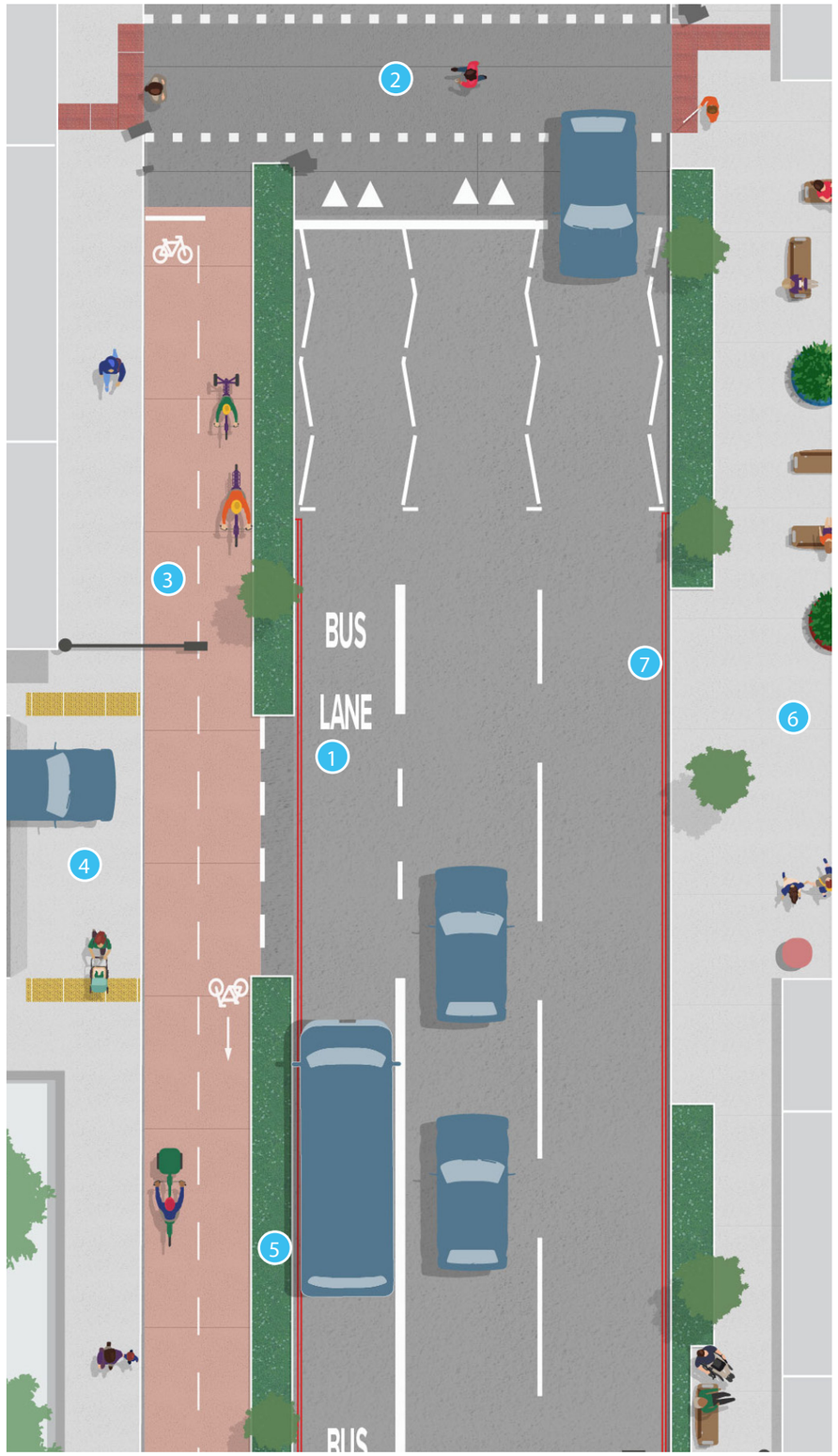
Transform the street



1. Bus lane (inbound).
2. Controlled crossing on partial raised table with gradients and length optimised for buses.
3. Protected two-way cycle track to optimise space.
4. Continuous footways provided at side road.
5. SuDs rain gardens and street trees have a transformational effect on the way all users experience and use the street. Choice of planting and street trees responds to context (e.g. salt and pollution tolerant species) and maintenance requirements considered from the outset.
6. Spill out space for cafe.
7. Potential for this corridor to become a Red Route as they will continue to be important routes for traffic. This would allow better enforcement of Traffic Regulations.



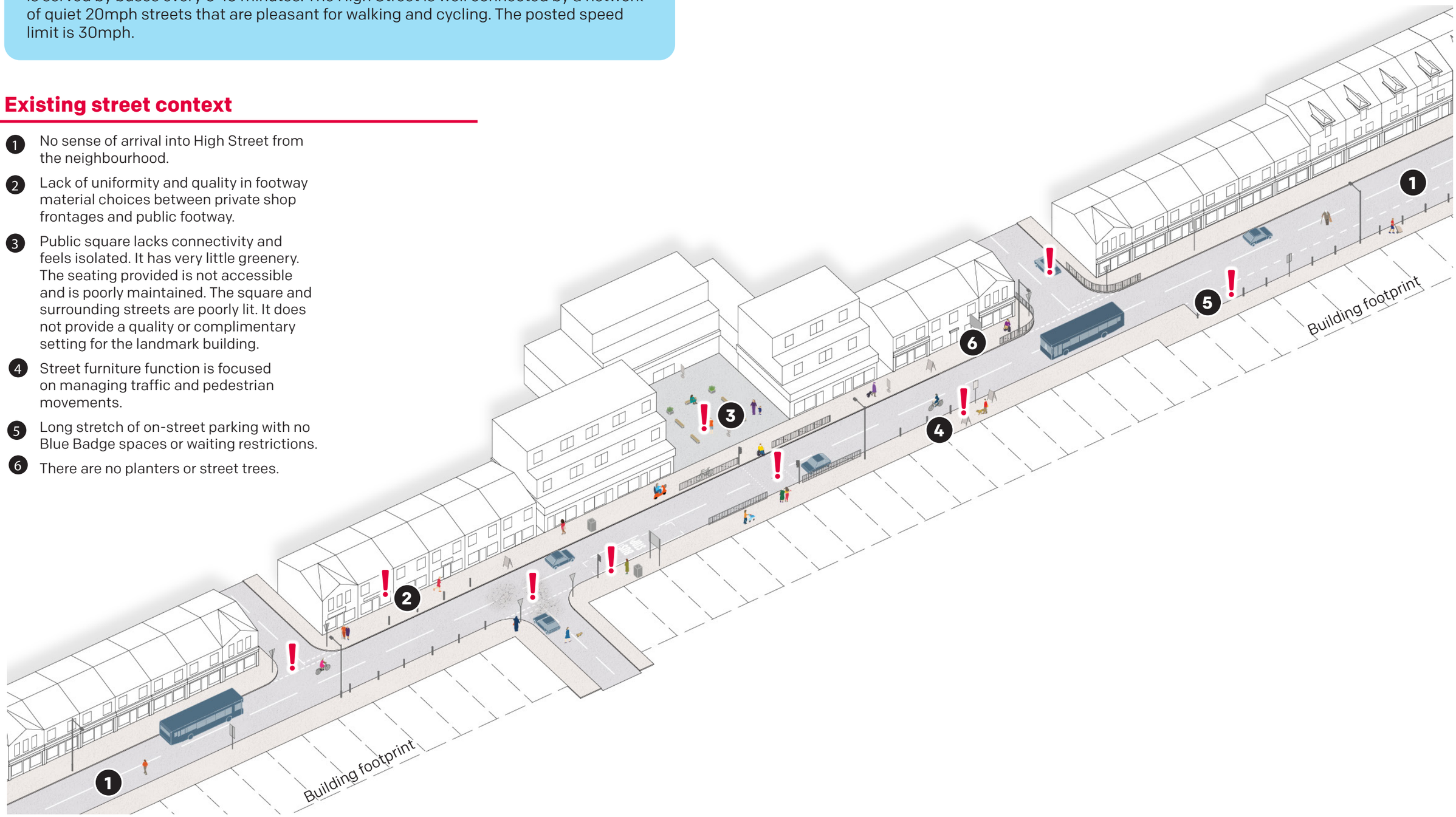
Not templates for design.

5.6 High Street

This street is an example of a mixed-use High Street with retail, hospitality and offices both sides of the street. There is a small public square with good enclosure, a landmark building and active frontage. There are low levels of general traffic. The street is served by buses every 5-10 minutes. The High Street is well connected by a network of quiet 20mph streets that are pleasant for walking and cycling. The posted speed limit is 30mph.

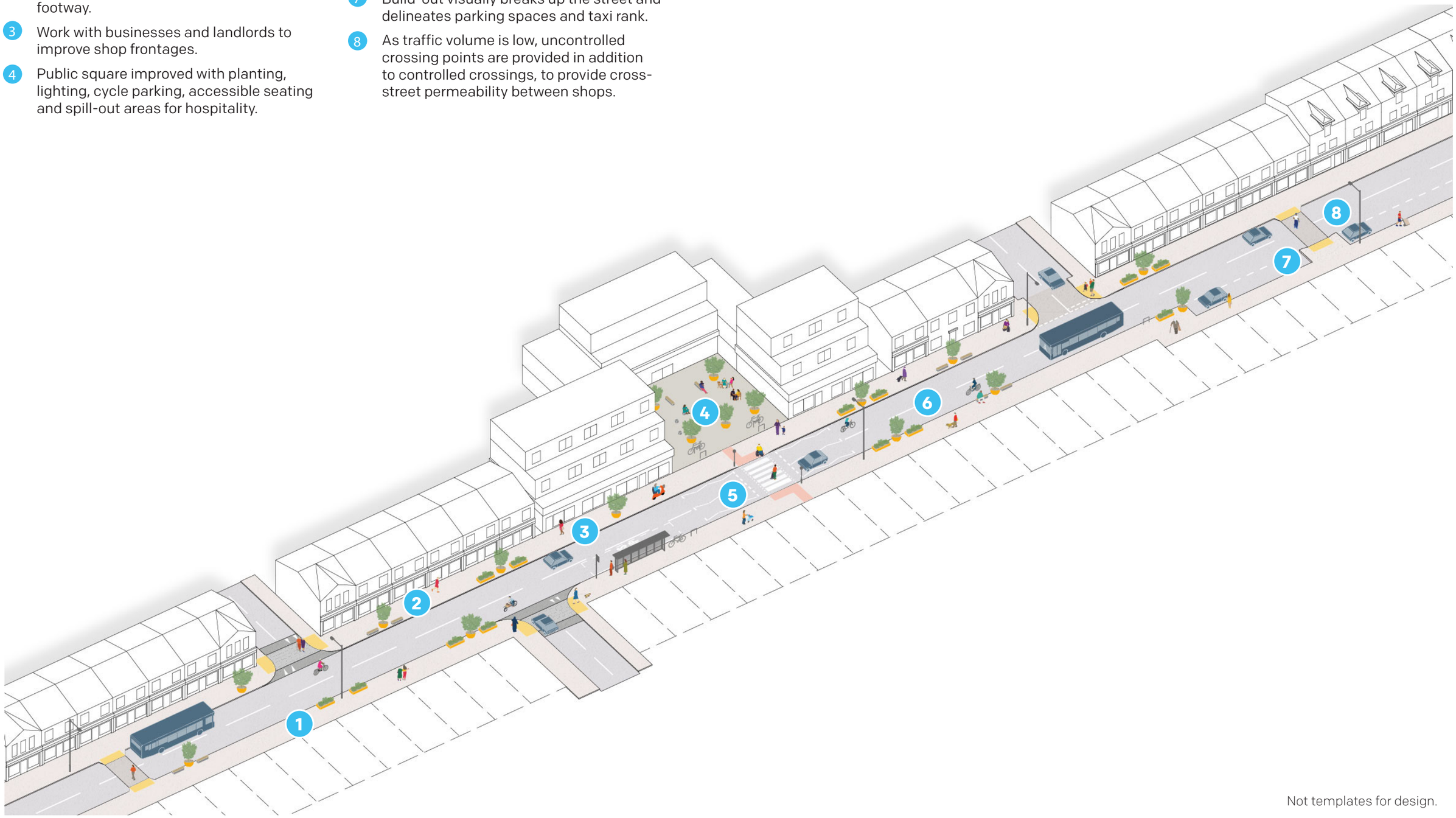
Existing street context

1. No sense of arrival into High Street from the neighbourhood.
2. Lack of uniformity and quality in footway material choices between private shop frontages and public footway.
3. Public square lacks connectivity and feels isolated. It has very little greenery. The seating provided is not accessible and is poorly maintained. The square and surrounding streets are poorly lit. It does not provide a quality or complimentary setting for the landmark building.
4. Street furniture function is focused on managing traffic and pedestrian movements.
5. Long stretch of on-street parking with no Blue Badge spaces or waiting restrictions.
6. There are no planters or street trees.



Improve the street

1. Planters installed along the length of the High Street.
2. Street furniture rationalised and bollards / guardrailing removed. Clearly defined furniture and movement zones along the footway.
3. Work with businesses and landlords to improve shop frontages.
4. Public square improved with planting, lighting, cycle parking, accessible seating and spill-out areas for hospitality.
5. Zebra crossing provides pedestrian priority at all times and reduces severance effect of the street.
6. 20mph posted speed limit.
7. Build-out visually breaks up the street and delineates parking spaces and taxi rank.
8. As traffic volume is low, uncontrolled crossing points are provided in addition to controlled crossings, to provide cross-street permeability between shops.



Not templates for design.

Transform the street - option 1

1. Road narrowing, crossings on raised tables and local artwork / welcome signage creates gateway to the High Street.
2. Carriageway materials incorporating buff coloured aggregate to differentiate the High Street from surrounding neighbourhood.
3. Footway materials upgraded and consistent throughout and carries through into public square.
4. SuDS enabled street trees and rain gardens.
5. Spill out space adjacent to carriageway.
6. More opportunities to cross over the street.
7. Public square upgrades include inclusive play equipment, and flexible event space.
8. Sheltered on-street parking.

Not templates for design.

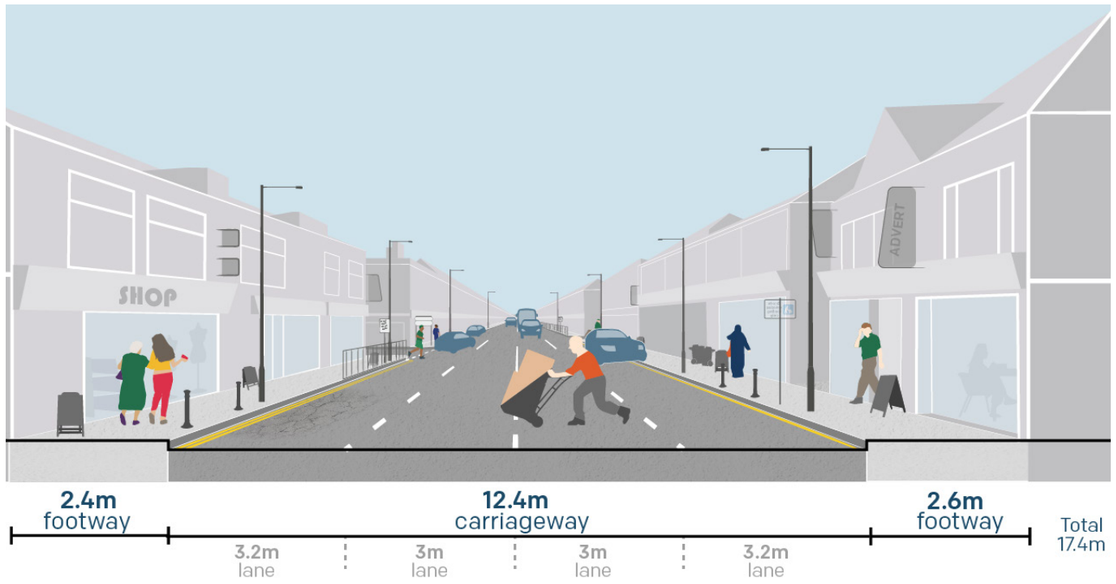
Transform the street - option 2

1. Street converted to one-way traffic with traffic in opposite direction diverted onto adjacent Local Connector Street.
2. Contraflow protected cycle track.
3. Wider footways.

Not templates for design.

5.7 High Road (1)

This street is an example of a historic High Road on a former Strategic Road, which acts as a linear local centre. The street is heavily trafficked by motor vehicles, including a large number of HGV's. Local businesses front both sides of the street and with residential on above ground floor units. There is a rail station close by. The street is served by buses every few minutes in each direction. The posted speed limit is 30mph.



Existing street context

1 Street layout

Nearly all of the available space between the buildings is carriageway. Hard surfaces visually dominate the streetscape.

2 Pedestrian environment

This street is a local centre with high footfall. Although the footways are not narrow, they feel narrow given proximity to motor traffic, particularly HGVs. The available width is further compromised by inconsistent placement of guardrailing, lighting columns, bollards and advertising A-boards.

The section of footway enclosed by buildings and the retaining structure where the road was super-elevated is particularly unpleasant.

There are no controlled crossings. Kerbs at side road crossings are not flush and there is no tactile paving.

3 Cycling along the street

People often do not choose to cycle along this street. There is a lack of clear alternative / parallel routes to the High Road. As a result, cycle use is low.

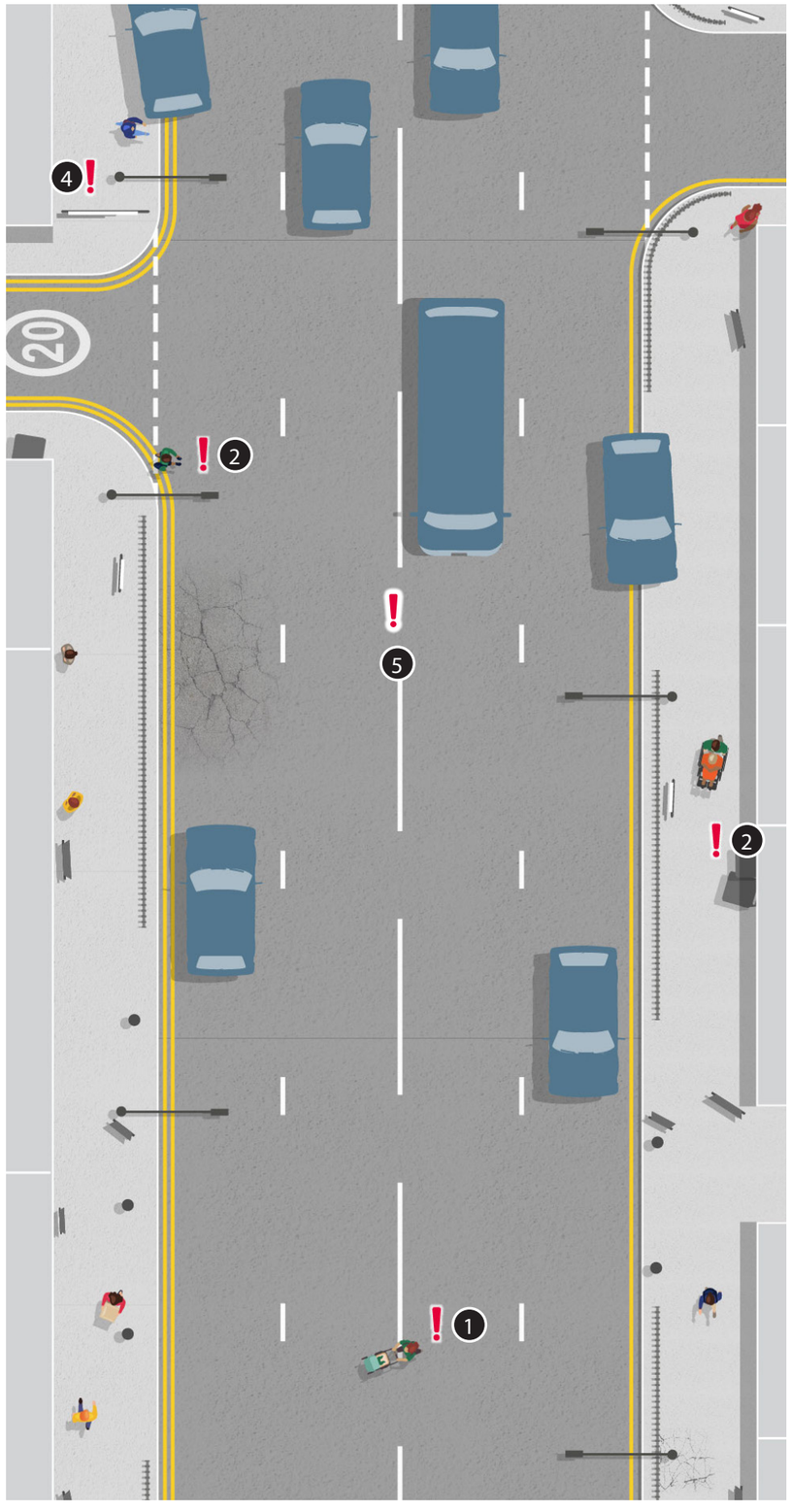
4 Parking

Although there are double yellow lines throughout, cars often park for short periods. This causes traffic congestion and delays to buses. There are a number of car parks to the rear of the shops, which provide ample parking, both short and long stay, as well as a large car park at the rail station, for rail customers use.

5 Buses

Despite the high number of buses using the street, carrying high passenger numbers, there are no bus lanes or other bus priority measures. Buses experience severe delays particularly at peak times, such as the morning peak period inbound towards the district's main town centre.

Existing street context



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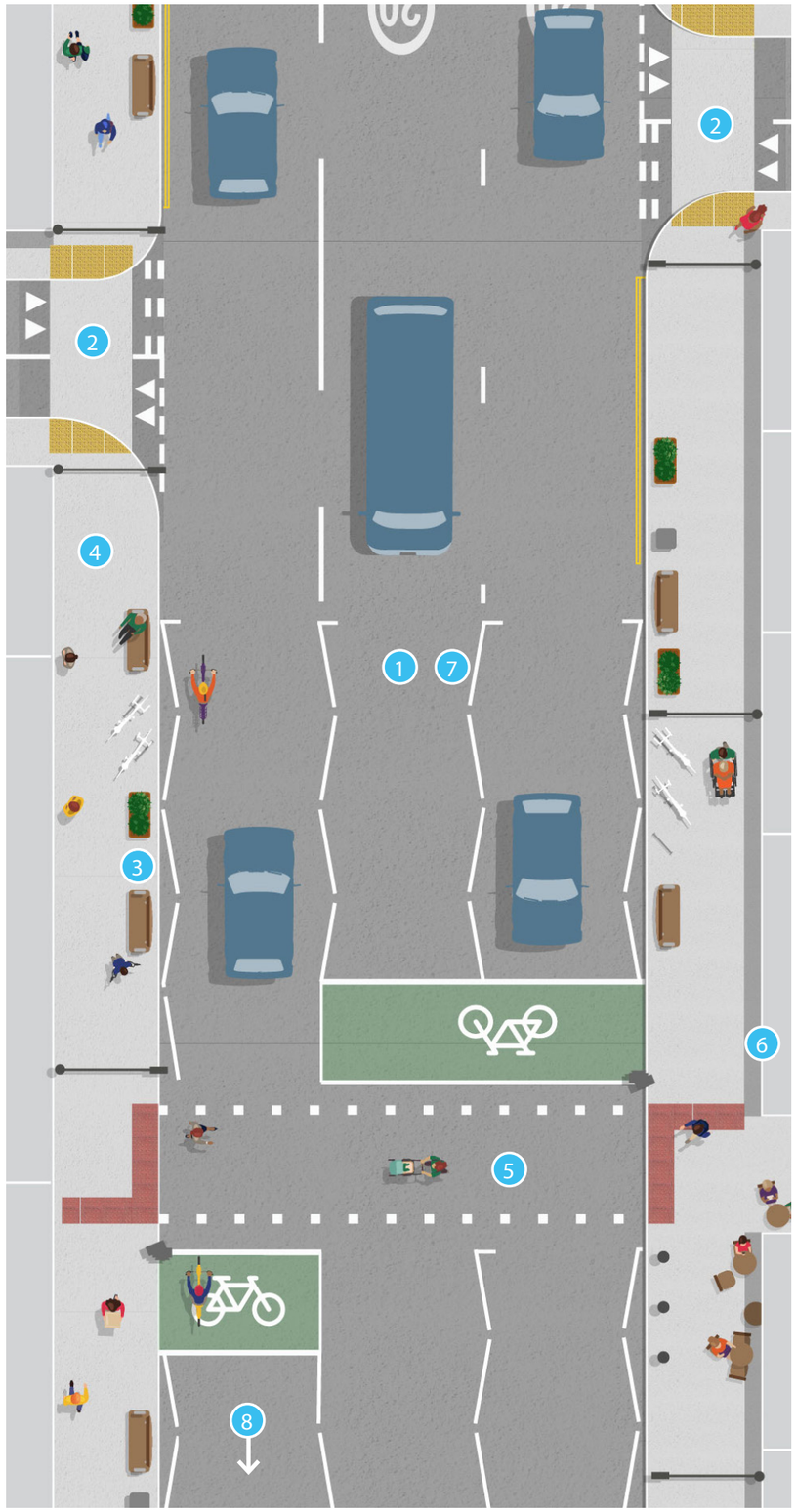
Improve the street

1. Carriageway width reallocation to provide three wide lanes, instead of four, in a two + one arrangement. The two lane section is retained in the direction that is most congested, towards the district town centre. Surface patch repaired. Speed limit lowered to 20mph.
2. Raised table crossings with tactile paving provided at side road junctions to reinforce pedestrian priority and provide footway continuity.
3. Planters and benches introduced on footway (aligned with kerb edge) replacing / reducing need for bollards and guard railing, to provide a buffer between people walking, wheeling and browsing, and traffic. This also discourages vehicles from parking on the footway.
4. Footways resurfaced with asphalt throughout.
5. Additional signalised single-stage crossing.
6. Opportunities for impact murals and street art, working with local artists.
7. Replacement of narrow lanes with wider lanes provide a better environment for cycling, with suitable clearance.
8. The street transitions into a Multi-lane Connector street to either side of the local centre, and maintains four lanes for general traffic. In this section bus lanes are introduced, with bus advance traffic signals alongside queue relocation. This allows buses to get ahead of general traffic queues into the more constrained section of road through the district centre.



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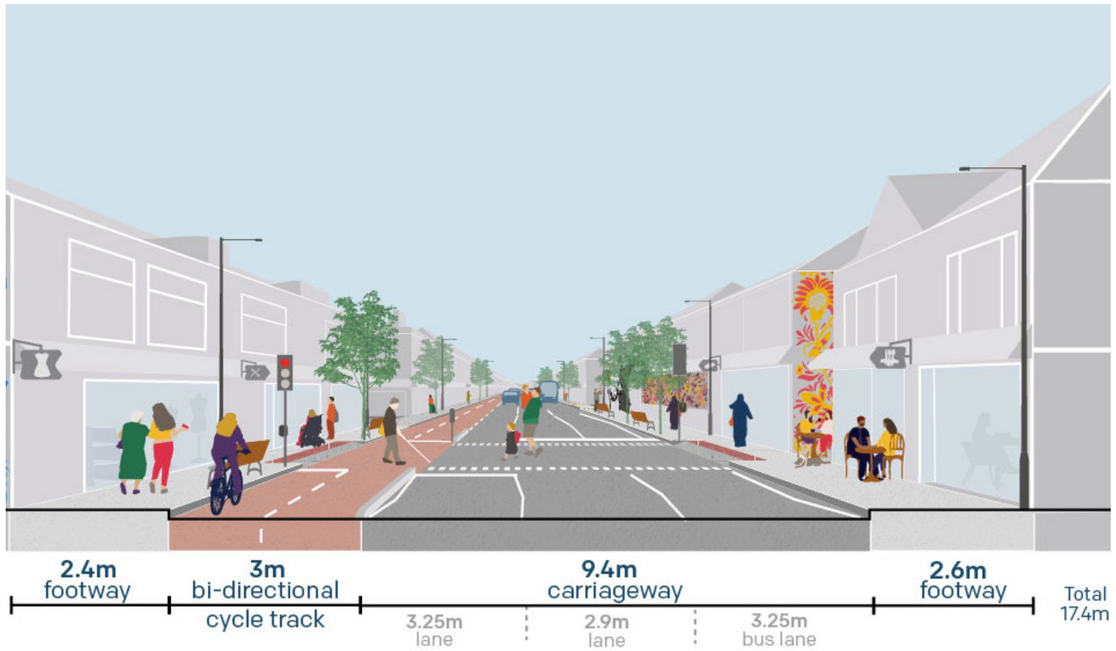
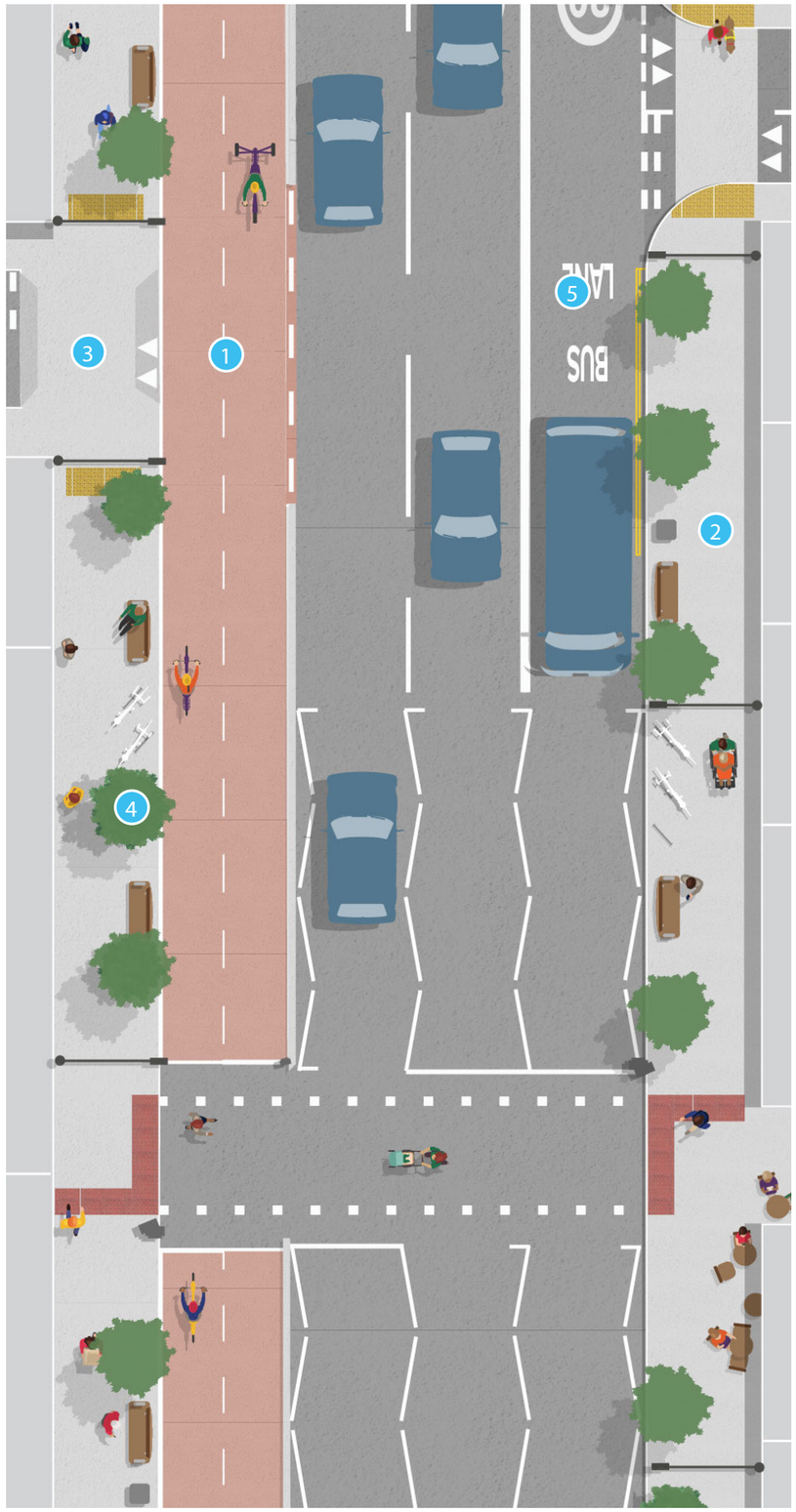
Transform the street



1. Carriageway space is reallocated to provide a 3m wide two-way kerb protected cycle track. The two-way cycle track makes best use of space — there is insufficient room available to provide even minimum standard cycle lanes to each side of the road. Provision for cyclists is transformed, and ties into a wider provision of fully protected cycle track through the corridor to the main town centre in the district.
2. Footways are resurfaced with manufactured concrete paving. To the south, the super-elevated section is removed and regraded, alongside the 20 mph limit.
3. A continuous footway is provided across the side road to the left side of the street. Stopping up this street could also be an option.
4. SuDS enabled street trees are introduced, breaking up the visual dominance of hard surfaces. Planters are replaced with along with planted beds, including some rain gardens and shelter.
5. Bus lane introduced. Potential for this street to become a Red Route as it will continue to be important routes for traffic. This would allow better enforcement of Traffic Regulations.



Not templates for design.

5.8 High Road (2)

This street is an example of a High Road between a district centre and regional centre. Beyond the High Road are dense residential neighbourhoods. Local businesses front both sides of the street with residential accommodation located above ground floor units. The street is served by buses every few minutes in each direction. The posted speed limit is 30mph.

Existing street context

1 Street layout

Much of the available space between the buildings is carriageway for use by general traffic.

2 Pedestrian environment

This street is a local centre with high footfall. Although the footways are wide enough to accommodate pedestrian flows, the width is compromised by inconsistent placement of guardrailing, lighting columns, bollards and advertising A-boards. The positioning of some bus shelters makes it difficult for people to pass along the footway.

Kerbs at side road crossings are flush but there is no tactile paving. Tactile paving units at the controlled crossing are broken and create trip hazards.

3 Buses

Despite the high number of buses using the street, carrying high passenger numbers, there are no bus lanes or other bus priority measures. Buses experience severe delays throughout the day in both directions. Buses find it difficult to leave the bus lay-by.

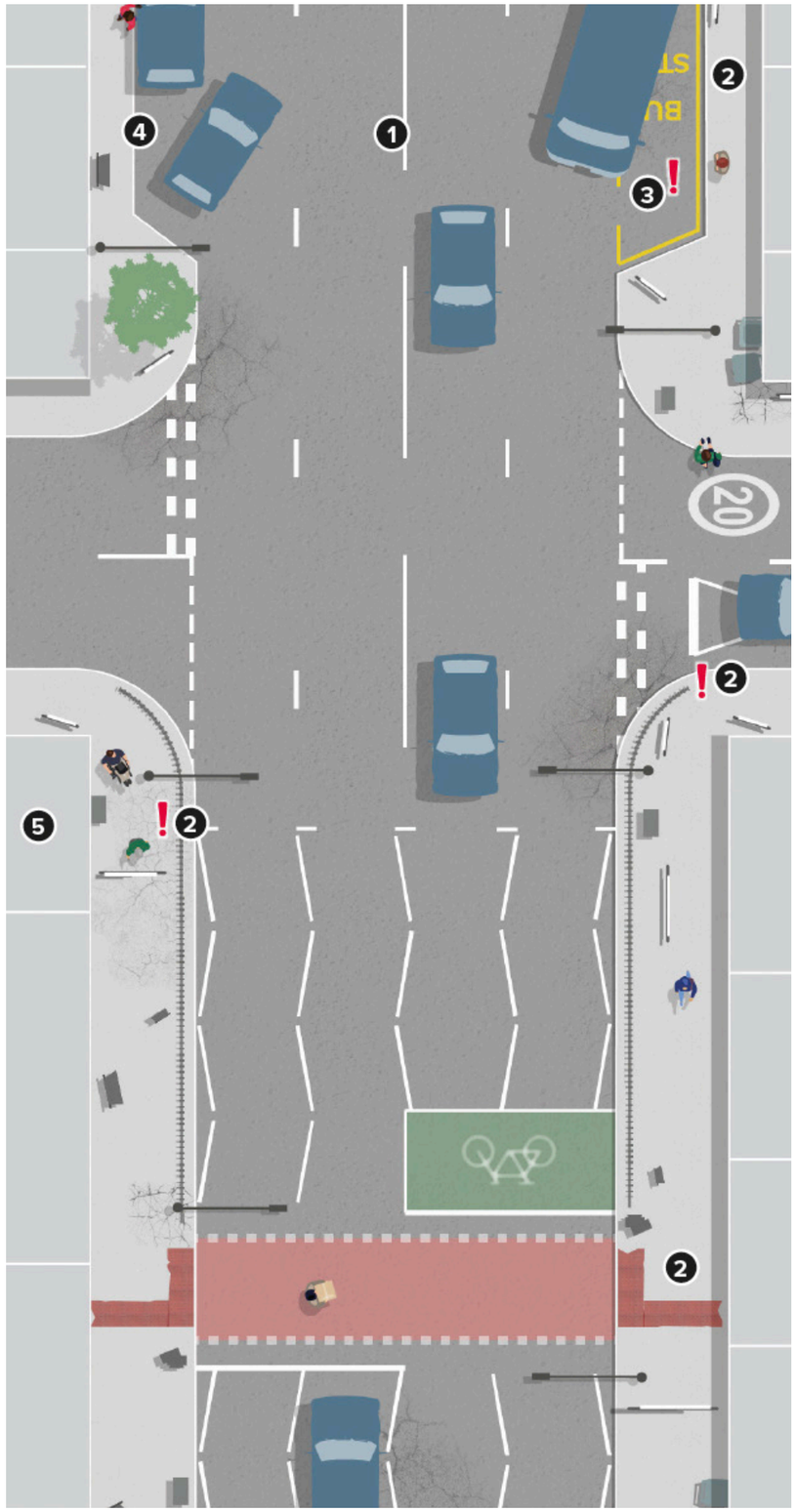
4 Parking

There is formalised on-street parking but there are no Blue Badge parking bays.

5 Loading and servicing

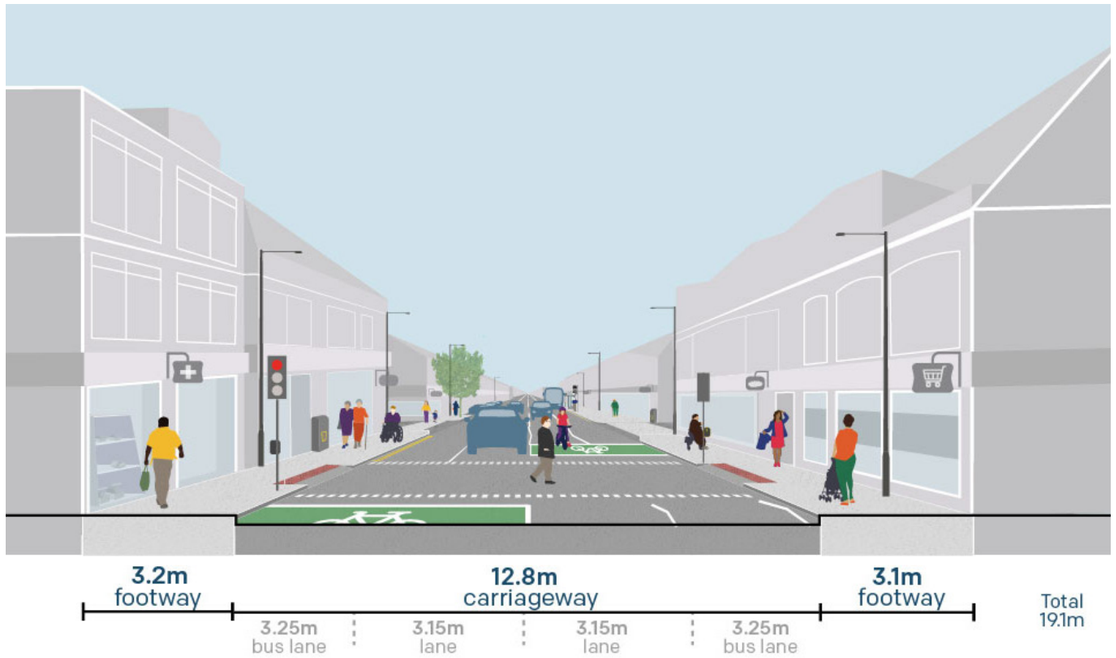
There is limited rear or off-street provision for servicing. Some delivery vehicles need to park in the street to service businesses.

Existing street context



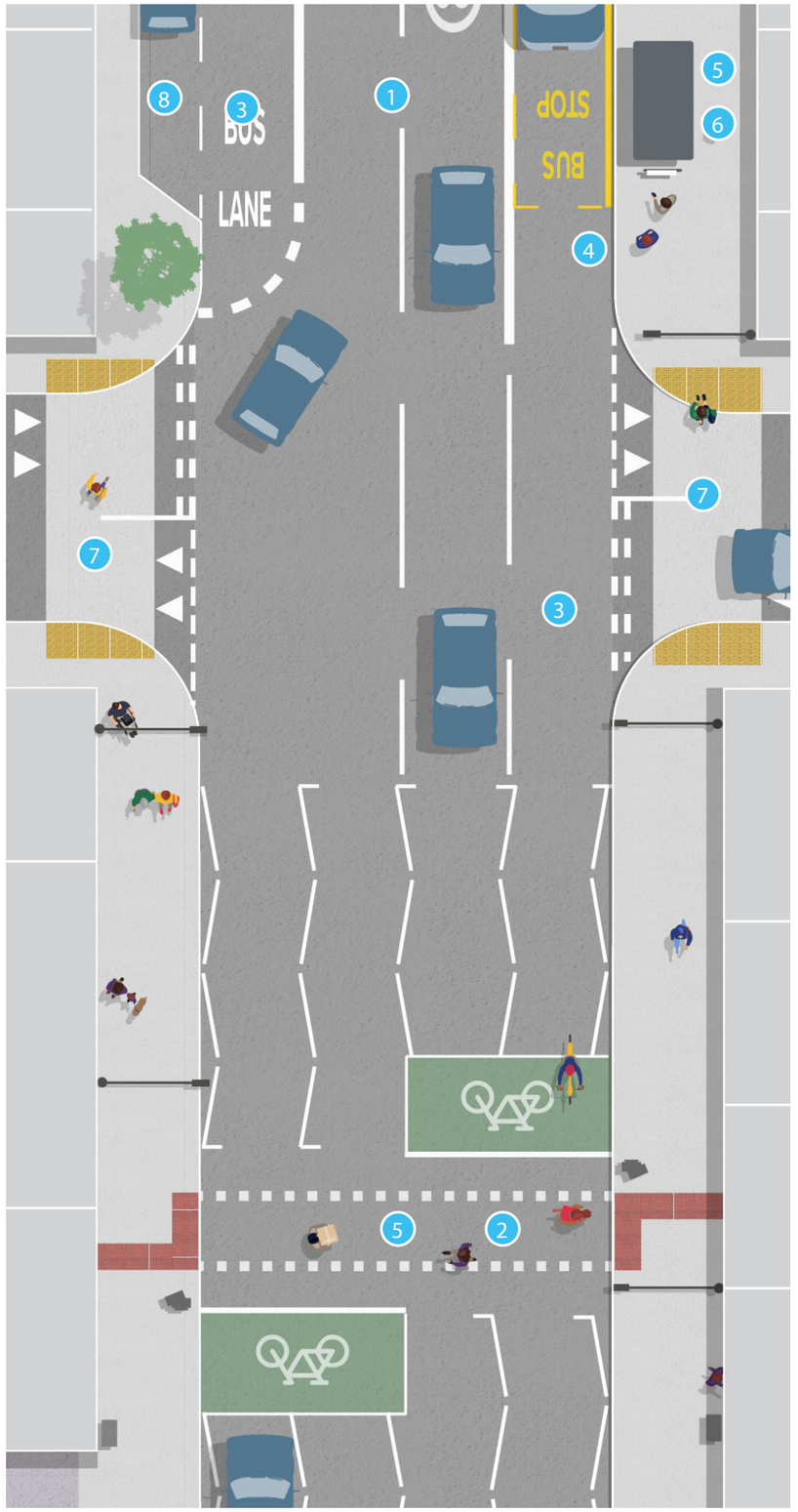
Not templates for design.

Improve the street



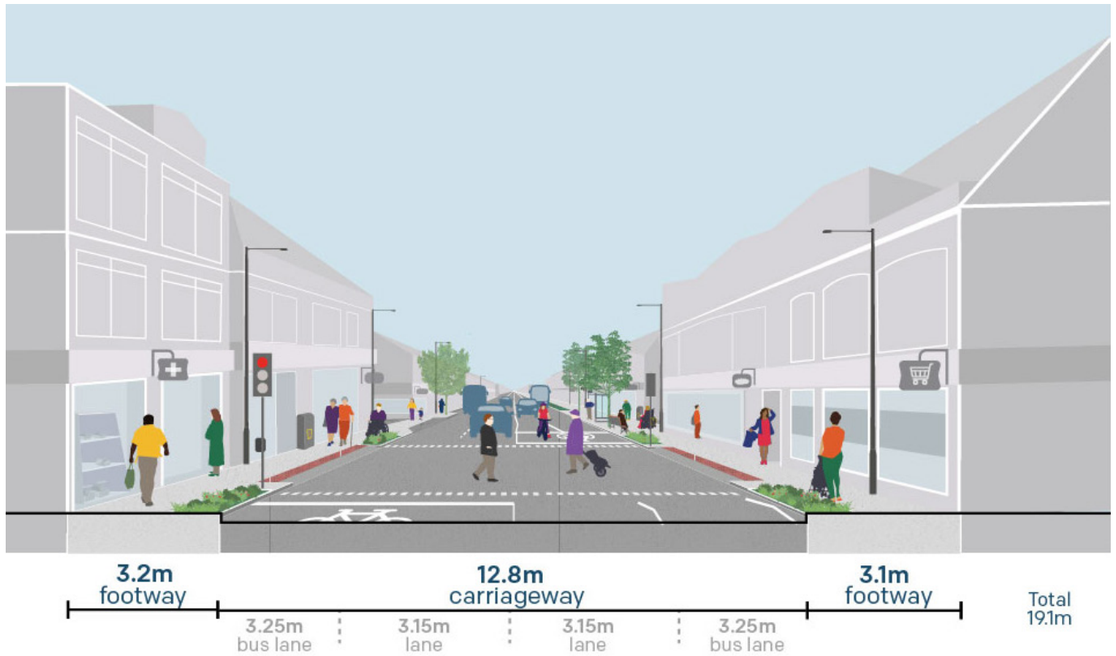
1. Surface patch repaired. Speed limit lowered to 20mph.
2. Worn-out red overlay removed from controlled crossing. Red overlay at controlled crossings can cause confusion for some visually impaired people and people with cognitive differences as there is no colour and tonal differentiation between the tactile paving and the carriageway. Broken tactile paving replaced.
3. Peak period bus lanes introduced on both sides of the street.
4. Remove bus lay-by so buses are not
5. delayed when leaving the stop. This stop is not a timing point, but note that bus timing points require a lay-by or sufficient carriageway width to allow other vehicles to pass.
6. Layout of street furniture at bus stop revised and upgraded, with clearly marked and wheelchair accessible boarding point provided.
7. Space freed up by filling in bus lay-by is used to provide a bus shelter and waiting area, which doesn't compromise footway widths.
8. Raised table crossings with tactile paving provided at side road junctions to reinforce pedestrian priority and provide footway continuity.

   Blue Badge parking bays introduced.



Not templates for design.

Transform the street



1. SuDS rain gardens create a buffer between footway and carriageway, provide biodiversity benefits and reduce surface water run-off.
2. Benches positioned near street trees that provide shading and cooling.
3. Widened pedestrian crossing and extended green man crossing time.
4. Stopped-up side road to create small area of public realm next to relocated bus shelter.
5. Dedicated loading bay provided so delivery vehicles avoid loading in bus lanes. Blue Badge parking bays relocated to a more convenient location.
6. Bus lane operation extended to 7am — 7pm.

Not templates for design.

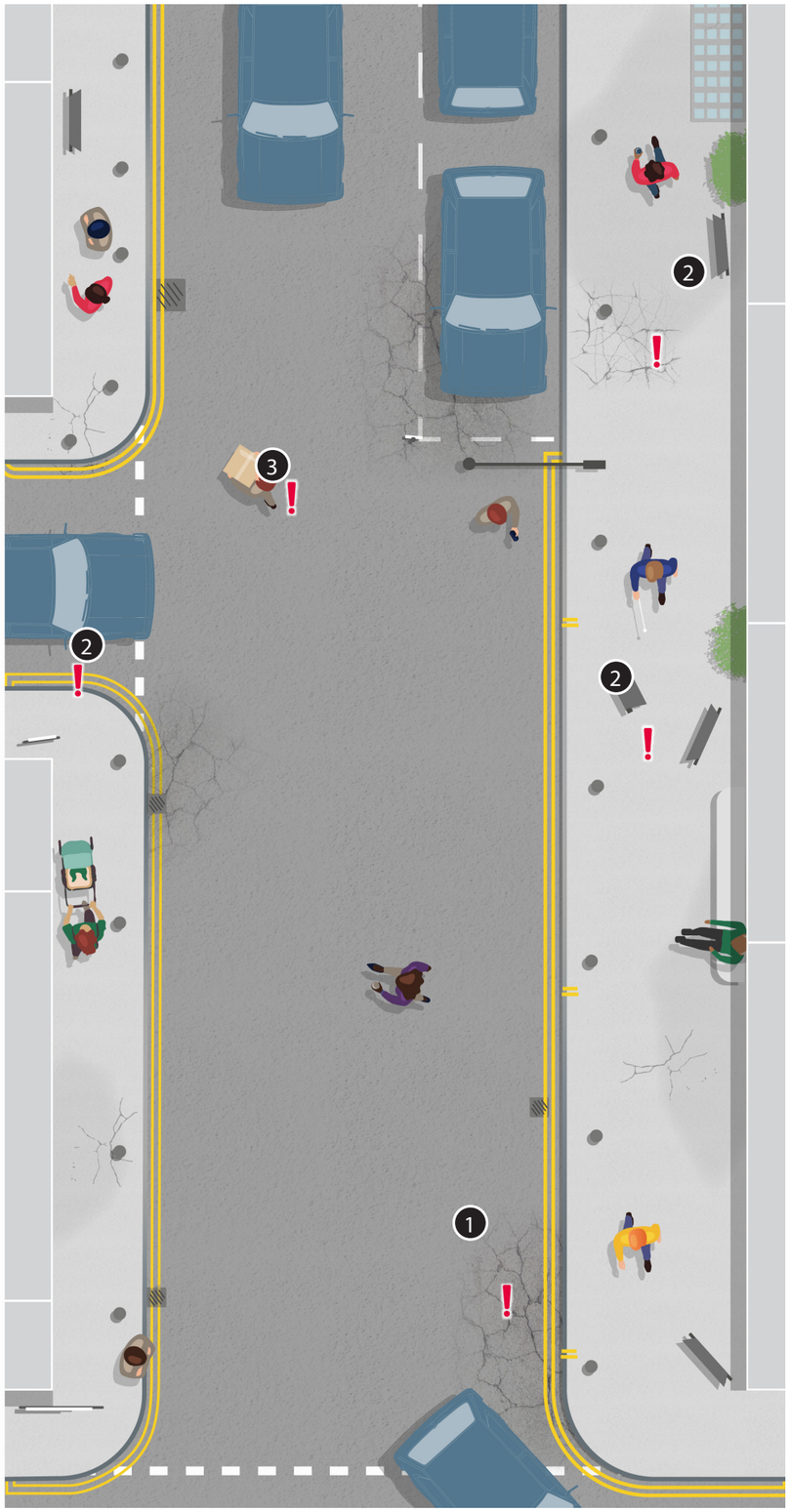
5.9 Destination Place

This destination place is animated by active shops, bars and restaurants — alongside residential dwellings and local landmarks. Due to these mixed functions, traffic is usually restricted to service and delivery vehicles, but the enclosed street remains largely occupied by the carriageway.

Existing street context

1. **Street layout**
   The street has changed over time to become a busy popular Destination Place with a mix of retail, restaurants, bars and leisure uses. Footfall is much higher and car traffic lower than previously, but the space allocated to different uses and users is unchanged.
2. **Pedestrian environment**
   Inconsistent placement of guardrailing, lighting columns, bollards and advertising A-boards compromises the already narrow footways. Side road junctions have no dropped kerbs or tactile paving.
3. **Servicing**
   Dedicated loading bays are provided but often used illegally for short stay on-street parking. Servicing activity can clash with times of peak pedestrian activity.

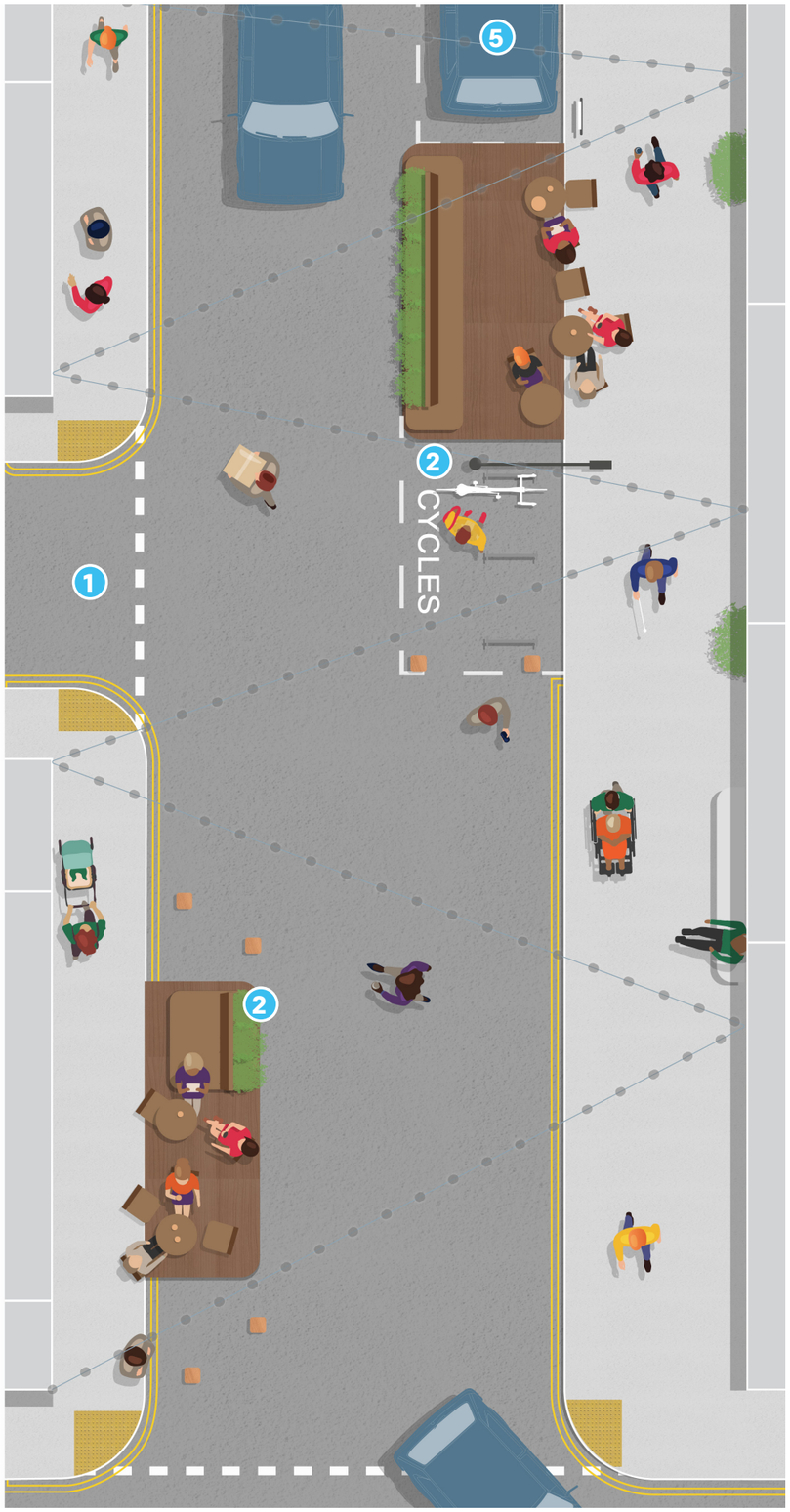
Existing street context



Not templates for design.

Improve the street

1. Side junctions upgraded with raised table crossings and correct tactile paving.
2. Parklets which re-purpose one or more parking spaces. Provide seating and places to rest, space for outdoor dining and drinking, greenery, cycle parking.
3. Festoon lights.
4. Building mounted street lights.
5. Enforcement of loading bay use and introduction of timed restrictions for deliveries.



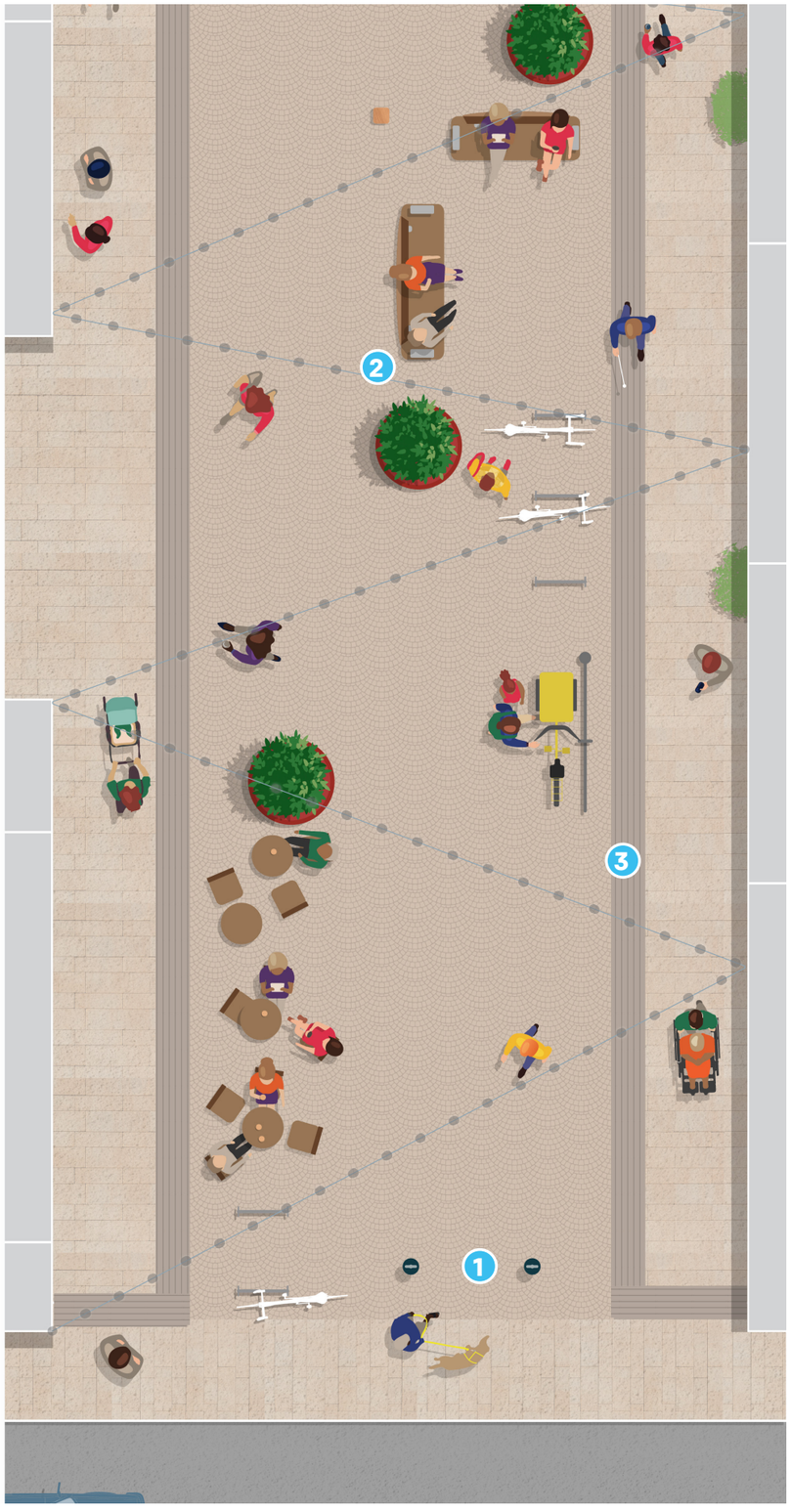
Not templates for design.

Transform the street

11.1m
pedestrian priority
Total 11.1m

11.1m
pedestrian priority
Total 11.1m

1. Pedestrianised street with access for loading and servicing at certain hours controlled by retractable HVM bollards.
2. Street furniture should be located to ensure that clear through routes for servicing vehicles are maintained based on swept paths.
3. Level surface. In place of a traditional kerb upstand, there is a strip of detectable guidance tactile paving. Maintain clear pedestrian route between building line and tactile guidance paving so that the historical street structure of clear unobstructed routes next to buildings is retained.



Not templates for design.

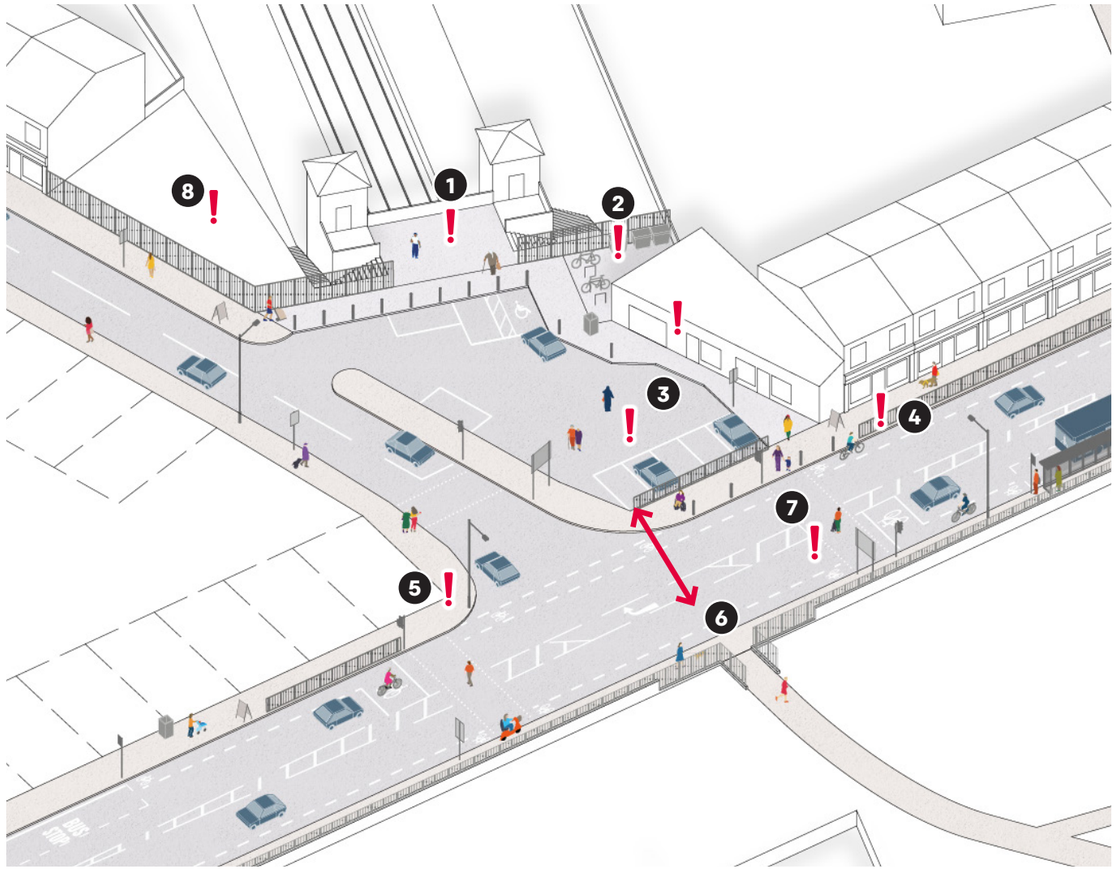
5.10 Gateway

This Gateway location is a suburban railway station with regular services. The station serves both the local community and a wider catchment who access the station by bus. It also provides access for visitors to the area's most popular and largest park. The Gateway is busy throughout the year, particularly when there are major events in the park.

Existing street context

1. Station entrance is hidden away.
2. Inadequate, insecure and non-accessible cycle parking adjacent to open bin store.
3. Most of station forecourt is dedicated to motor vehicles.
4. Long sections of guardrail — originally installed some decades ago to deter pavement parking.
5. Narrow footways, particularly at junction radii.
6. Poor legibility of, and connection between, station and park entrance.
7. Desire line between station entrance and crossings are not provided.
8. Underutilised railway compound.

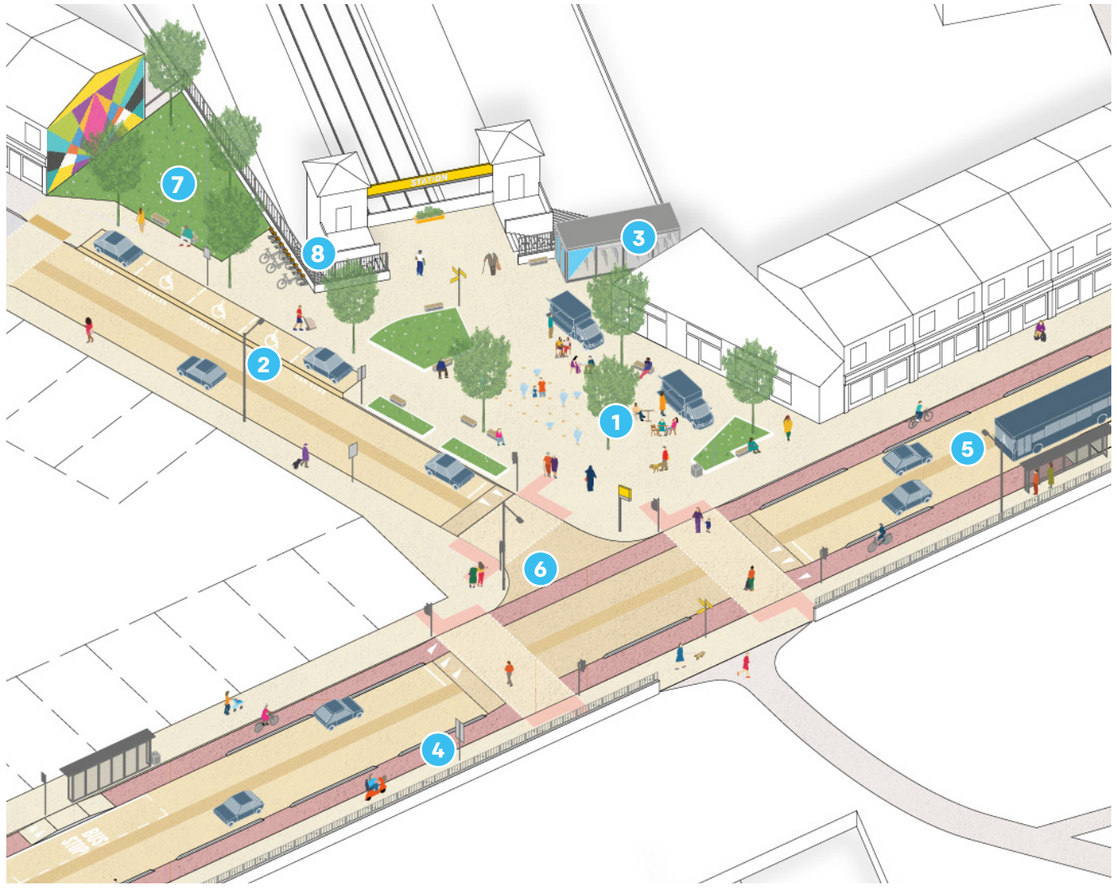
Existing street context



Improve the street

1. Improved arrival environment.
2. Wayfinding improved with totem signage.
3. Covered cycle shelter provided. Bins relocated to covered storage.
4. Half of forecourt pedestrianised to create small public square. Disabled parking and pick-up/ drop-off spaces retained.
5. Guardrail removed. TRO and enforcement of waiting and loading restrictions.
6. Guardrail and bollards around forecourt replaced by benches, trees and planters.

Transform the street



1. Forecourt transformed to create a large public square with planting and amenity space.
2. Sheltered on-street disabled parking and car club space provided.
3. Secure cycle hub provided.
4. Carriageway narrowed to provide wider footways and protected cycle tracks
5. Carriageway resurfaced in vicinity of station with centreline markings replaced by imprinted asphalt median strip.
6. Raised table junction with footway build-out.
7. Unused railway compound incorporated into public realm to improve station environs.
8. Cycle hire.

Not templates for design.

Appendix A

A.1 Delivering Streets for All

Delivering streets that work for everyone involves working with many different people, from local communities and street users, to technical specialists and organisations.

Co-design

Use of effective and creative engagement techniques, discussion, co-design and evidence gathering is essential to ensure anything we do on streets makes them inclusive, equitable and successful. Engaging with local communities to encourage the co-design of local places and spaces ensures they meets the needs of the local population through co-design and consultation.

GM Model of Community Engagement (MoCE)

When designing infrastructure and assets, design decisions should be people-centred and context sensitive to support desired outcomes, with a particular focus on creating universally accessible streets, places and facilities.

The Model of Community Engagement (MoCE) is a guide and toolkit developed to help embed inclusion across all project stages through a consistent approach to engagement, consultation, and equalities considerations. This engagement model and toolkit has been developed for use by teams within TfGM and Local Authorities who are responsible for the design, development and delivery of public infrastructure (e.g. street and transport infrastructure) and service improvement schemes.

The MoCE is designed to work across all modes and funding types and is applicable throughout the full project cycle from programme development through to delivery and beyond, including activation, monitoring, and evaluation.

The MoCE can also be used as a tool to help in developing business cases and project planning processes to ensure sufficient resources are allocated for effective engagement and consultation.

The MoCE has been created to support scheme promoters to achieve best practice, fulfil legal duties and ensure a consistent and proportionate approach to engagement, consultation and equalities.

The Model consists of three sections:

- Section 1: An overview of best practice principles.
- Section 2: Practical guidance on planning and delivering engagement.
- Section 3: Useful templates and further resources.

To access a copy of the MoCE, give feedback, or if you would like to share a case study of how the MoCE has been applied to a project, please email the team at **engagement@tfgm.com**

GM Urban Traffic Control (UTC)

Scheme promoters should contact GM UTC at an early stage if any works are likely to impact the design and operation of Greater Manchester's permanent traffic signals (junctions and crossings).

GM Urban Traffic Control contact details:
gmutc@tfgm.com FAO the Infrastructure Design Group.

GMUTC will provide their latest Design Standards on request.

As part of the scheme development process all schemes impacting UTC maintained and operated signal infrastructure must be approved by the GMUTC Central Design Board as well as the relevant Highway Authority.

Bus routes

Where schemes propose to make changes on bus routes, early engagement is required with TfGM's Bus Team to ensure that any proposals do not adversely affect the ability to operate bus services and allow for enhancements to the operating environment (where possible).

Bus Team contact details:
trafficmanagers@tfgm.com

Bus stops and shelters

Scheme promoters should contact TfGM's Route Development Team at an early stage if any works are likely to impact any bus stops or shelters.

TfGM's Route Development Team contact details:

shelters@tfgm.com

Metrolink

If a scheme interfaces with, or is close to Metrolink infrastructure there are particular considerations which are beyond the scope of this guide. In such cases, the Metrolink team at TfGM must be contacted at the earliest opportunity.

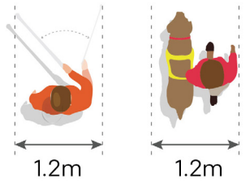
Metrolink Approvals and Consents contact details:
metrolinkapprovalsandconsents@tfgm.com

Transport Strategy

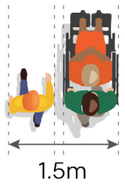
Users of this document are encouraged to raise any queries and / or provide feedback on the content and usage of this document by emailing **gmstreetdesignguide@tfgm.com**

A.2 Basic human requirements for ease of movement

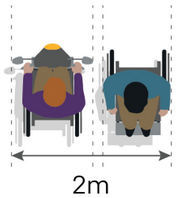
- **1 metre** — minimum width which allows a wheelchair user or someone pushing a double buggy to pass along a footway.



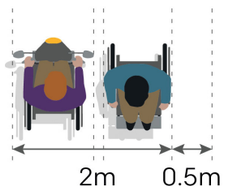
- **1.2 metres** — minimum width which allows a person using a cane, or accompanied by an assistance dog, to pass along a footway.



- **1.5 metres** — minimum width which allows a wheelchair user or someone pushing a double buggy, and someone on foot (either accompanying them to the side) or passing in the opposite direction.



- **2 metres** — minimum width which allows a wheelchair user or someone pushing a double buggy to pass another wheelchair user or double buggy.



- **2.5 metres** – minimum width which allows a wheelchair user or someone pushing a double buggy to pass another wheelchair user or double buggy, allowing 0.5m clearance to face of kerb.

Figure: A

A.3 Highway code hierarchy of road users

The hierarchy of road users set out in the Highway Code should be considered in the design process. This is based on the principle that those who can cause the greatest harm have the greatest responsibility to reduce the risk they pose to others.

Figure: B

A.4 Streets for All Design Check

The Streets for All Design Check is a tool to help designers ensure scheme designs support the delivery of the Streets for All vision:

"We will ensure that our streets are welcoming, accessible, green, and safe spaces for all people, enabling more travel by walking, cycling and using public transport while creating thriving places that support local communities and businesses."

The Check can be used to assess existing streets as well as plans for street improvements or new streets against design principles and requirements which are set out in Greater Manchester's Streets for All Design Guidance.

It is essentially a checklist which ensures that a holistic approach is taken to designing streets for people, considering all current and potential uses and users.

To access the latest version, visit **tfgm.com/strategy/streets-for-all**

A.5 Case Studies

Neighbourhood

Beswick, Manchester

Background

- In January 2019, there was a fatality of a young boy as a result of dangerous driving on Albert Street in Beswick. The road already had a 20 miles per hour speed limit and traffic calming measures in place.
- A petition was started on Change.org - 'Make our roads safe, traffic calming for Clayton Beswick Openshaw' - which to received nearly 3,300 signatures.
- Following the child's death, elected members and neighbourhood team members met his family and held two local community meetings. Local residents and the family were calling for traffic calming measures - namely speed humps and cameras. A bid was made to the Mayor's Challenge Fund for traffic calming, which did not secure funding. However, a second bid was made to encourage walking and cycling in the area which was successful.
- In 2019 the bid was made to the Mayor's Challenge Fund to support creation of a 'filtered neighbourhood' in Beswick. Beswick is a close-knit community who would like to see their neighbourhood improved and made safer for all residents to cycle and walk irrespective of age. It is characterised by some very wide roads such as Grey Mare Lane and some busy roads such as Albert Street that suffers from 'rat running.'

Scheme objectives:

- Reduce general traffic speeds in the scheme area
- Reduce mechanised traffic flows in the scheme area
- Reduce cycling and pedestrian collisions in scheme area
- Increase levels of cycling and walking in the scheme area

The scheme delivered:

- Neighbourhood-wide junction treatments including raised plateaus and build-outs
- One point closure with landscaping and public realm enhancements
- Bus friendly traffic calming
- Upgrade existing uncontrolled crossing to a Parallel zebra crossing
- Upgrade existing Puffin Crossing to a Parallel Crossing

Before

After

Credit: Manchester City Council

Before

After

Credit: Manchester City Council

Before

After

Credit: Manchester City Council

Before

After

Credit: Manchester City Council

Before

After

Credit: Manchester City Council

High Street

Pendleton Precinct, Salford

The principal aim of the scheme was to enhance the quality of the public realm, improve facilities for pedestrians, reduce the dominance of general traffic and improve the waiting environment for bus passengers. The main components included:

- The enhancement of six subways that connect Pendleton town centre with the communities to the north of the A6. These enhancements included improved lighting, the installation of CCTV and security mirrors, improved drainage and the resurfacing and rendering/repainting of the subways.
- The signalisation of the existing priority junctions at Belvedere Road/Hankinson Way and Hankinson Way/Rossall Way and the introduction of controlled pedestrian crossing facilities at these junctions.
- Hankinson Way reduced from a bus lane and a general traffic lane to a single lane in either direction, with the central reservation and existing sections of pedestrian guard rail removed and footways widened.
- Introduction of a 20mph speed limit together with associated traffic calming features to control vehicle speeds.
- The existing controlled crossing on Hankinson Way changed from a Puffin to a Toucan crossing, increased in width, reduced in length, changed from a staggered to a non-staggered crossing and repositioned so that it is aligned with key desire lines.
- Removal of existing standard JC Decaux shelters and replacement with 10 higher specification JC Decaux Foster shelters.
- Landscaping – street trees on Hankinson Way and comprehensive landscaping scheme around A6 roundabout/subway.

Before









After





Connector Street

Maid Marian Way, Nottingham[1]

Voted by the public as one of Britain's worst streets in 2002, Nottingham's Maid Marian Way has since been transformed into a pedestrian-friendly area.

- Pedestrian subways under busy roads on the edge of city centres are a common legacy from the 1960s and 70s. In Nottingham, Maid Marian Way was turned into an inner-city dual carriageway in 1964. The intersection with Friar Lane was turned into a roundabout with a sunken plaza, which linked four pedestrian subways each served by stairways and ramps. There are similar examples in many other UK towns and cities.
- In 1989, a review of planning policy for Nottingham city centre highlighted a number of essential measures to retain the city's competitive position for retail, business and tourism - including overcoming the barrier effect of Maid Marian Way. Consideration was given to sinking the road into a tunnel, but this was discounted on financial grounds.
- Remodelling of the dual carriageway and the inclusion of wide pedestrian crossings has restored a direct visual and psychological link across the busy road.
- The selected design involved completely filling the subways and sunken plaza with concrete.
- Large areas of additional public space have been won back in the process, creating generous pavements and areas of planting.

To see Maid Marian way, visit Google Maps

1 www.cabe.org.uk/case-studies

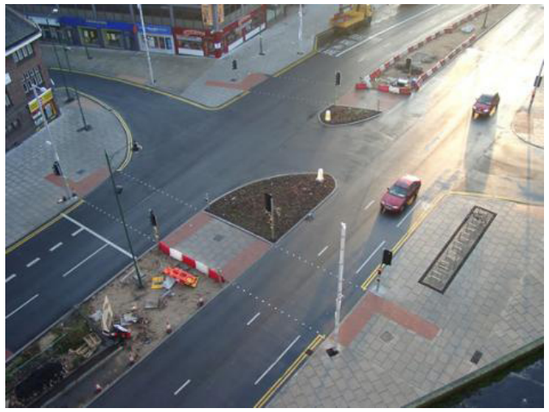
Before

Former roundabout at intersection of Maid Marian Way and Friar Lane. Credit: Nottingham City Council

After

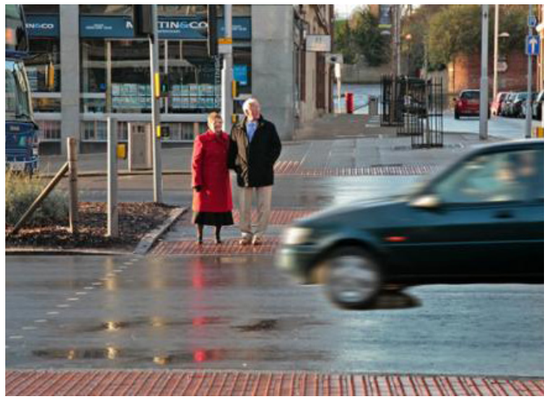
The selected design involved completely filling the subways and sunken plaza with concrete. Credit: Nottingham City Council

After



Replacing the roundabout with a set of traffic signals that allow for two-phase pedestrian crossings on either side of Friar Lane. Credit: Nottingham City Council

After



The five metre wide crossings provide adequate space on the central median to allow the crossings to be aligned with the pedestrian desire lines without the need for staggered crossings or guardrails. The crossings have restored a direct visual and psychological link across the busy road Credit: Stephen McLaren.

After

Trees and planting along Maid Marian Way.

A.6 Definitions Glossary

Term	Source	Definition
Access route	BS8300 (2018)	see: Clear pedestrian route
Accessible		see: Universally accessible
Active travel		Modes of travel including walking, wheeling and cycling, where the principal source of motive power is derived from the human body. Also includes electrically powered mobility aids — wheelchairs and mobility scooters — and E-bikes with pedal assistance, that is operational as speeds <= 15 miles per hour. It does not include e-scooters.
Adopted highway		Area of highway land maintainable at public expense by the Local Highway Authority. See also: Public Highway.
ANPR		Automatic Number Plate Recognition.
Average speed cameras		Speed enforcement based on the time to travel between two points, allowing the average speed to be calculated.
Bee Network		Greater Manchester's plan for an integrated, low-cost, network that brings together local trams, buses and bikes – and ultimately local train services – with the largest walking, wheeling and cycling network anywhere in the UK.
Bus stop bypass		A bus stop where a cycle track runs to the rear of the bus boarding point, between footway and bus boarding point, allowing cyclists, and in most cases pedestrians, to bypass the bus stop. The waiting area may be on the island, or on the footpath.
Carriageway		Section of street where passage of vehicles, animals and pedestrians is permitted.
Clear pedestrian route	BS8300 (2018)	A clear, unobstructed, legible and detectable pedestrian route along / through / across a street that meets, or exceeds minimum width requirements for use by people walking and wheeling. See: Maintained Minimum Unobstructed Width
Continuous footway		Where footway material continues through a lightly-trafficked side road junction. Tactile paving is required to alert pedestrians they are entering a space where they may encounter traffic.
Context-sensitive design		Design which takes into account of all aspects of the context of streets, to produce optimal outcomes for the particular location.
Corner radii/ radius		The radius of the curved kerbs at a junction / corner where two streets meet.
Corridor		A particular route and its environs / catchment to either side — can be defined tightly to the street, or more widely to the route, e.g. encompassing 500m either side, for particular purposes.
Cross section		Different uses across the width of the public highway between property boundaries.
Crossing - controlled		A formal crossing point — where pedestrians have priority — (zebra), pedestrians and cyclists have priority (parallel) or which is signal controlled and has pedestrian, or pedestrian (green man) and cyclist signals (green man and cycle symbol — toucan, green man and cycle signals parallel). Indicated by raised carriageway or dropped flush kerbs with red blister tactile paving.

Term	Definition
Crossing - formal	A defined crossing point with either dropped flush kerbs and footway ramp; raised carriageway; or combination of the two. Correct tactile paving (red blister controlled, other contrasting colour blister uncontrolled).
Crossing - Parallel	A zebra crossing with a cycle crossing running parallel to it. Sometimes also referred to as a Tiger crossing.
Crossing - Pelican	A signal controlled mid-link crossing, with far side signals. No pedestrian detection. Flashing Amber follows Red for general traffic. No longer installed, being replaced by Puffin crossings.
Crossing - Pegasus	A signal controlled crossing, for use by pedestrians, cyclists and horse riders. Have additional push button at 2m above the ground for mounted riders, and red and green horse signals. Otherwise, may be in form of Puffin or Pelican crossing.
Crossing - Puffin	A signal controlled crossing, with nearside pedestrian signals, and pedestrian detection. Pedestrian User-Friendly INtelligent crossing- PUFIN.
Crossing - side road	A crossing point across a side road at a priority (give way) junction, running in parallel with the main road.
Crossing - signalised	Any pedestrian or cycle crossing that is controlled by traffic signals, either at signalised junctions, or mid-link (Pelican, Toucan, Pegasus, Sparrow).
Crossing - Sparrow	A signal controlled crossing, with nearside pedestrian signals, and adjacent parallel signal controlled cycle crossing.
Crossing - uncontrolled	A formal pedestrian crossing point across a street where pedestrians do not have priority, including at signalised junctions without pedestrian signals. Indicated by raised / dropped flush kerbs with buff, or other contrasting colour [red excepted] blister tactile paving.
Countdown signals	Display at signalised crossing or junction, used with far side pedestrian or cyclist signals, and located next to green man, which indicate the amount of time remaining in which people can finish crossing the road. Cannot be used with pedestrian detection.
Cycle track	A cycle facility, either remote from, or separated from a carriageway for general traffic by physical means.
Cycle lane	A cycle facility, typically marked out at the edge of a carriageway by road markings, within a carriageway for general traffic. Some such lanes may be provided with intermittent protection from motor traffic by means of kerbs or light segregation. But the key differentiator from a cycle track is that a solid white cycle lane line marking is still provided on the motor traffic side of any physical protection or separation.
CYCLOPS junctions	A signal controlled junction which separates cyclists from general traffic in addition to pedestrians, offering a safer route around the junction. Cycle Optimised Protected Signals - CYCLOPS.
Far side signal	Signal mounted on the far side of a crossing or junction.

Term	Definition
Footway	A section of street reserved for use solely by people walking or wheeling.
Footpath	A route located other than in a street, for use solely by people walking and wheeling.
Formalised parking	Parking which is set out formally within the street, either physically - e.g. bay build outs, SuDS, trees, or is set out by road markings. Parking restrictions often, but not always, apply.
GMCA	Greater Manchester Combined Authority brings together the 10 GM local authorities districts and elected Mayor of Greater Manchester.
Highway	A route where there is a public right of passage over land.
Hostile Vehicle Mitigation (HVM)	Measures designed to deter, mitigate or prevent hostile use of vehicles against people and property in busy pedestrian streets and places.
Inclusive design	Produces goods, services, or facilities designed to be usable by as many people as possible, taking in account all forms of human diversity, e.g. regardless of age, ability, socio-economic circumstances, without the need for additional measures or interventions. See also Universal accessibility.
Local Highway Authority (LHA)	Local authority exercising its powers and fulfilling duties and responsibilities in relation to Public Highways.
Local Planning Authority (LPA)	Local authority exercising its powers and fulfilling responsibilities and duties in relation to planning and development control.
Maintained minimum unobstructed width	This is the minimum that should be maintained at any point along a footway, or pedestrian route through a public space, clear of any obstructions.
Mid-link	A stretch of street between junctions e.g. mid-link crossing - a crossing not at, or away from a junction.
Modal filter/ Point closure	Any measure at a single point on a street that allows the passage of certain modes of transport whilst restricting others. One common type of filter allows for walking, wheeling, cycling and emergency vehicles to pass through.
Pavement parking	Parking of vehicles partly, or fully, upon the footway to the side of a carriageway - use of "Pavement" in line with DfT consultation and common usage.
Pedestrian	References to pedestrians include people using: mobility aids such as wheelchairs and rollators; powered wheelchairs; mobility scooters designed for use on the footway, and people with physical, sensory or cognitive impairments who are travelling on foot. Definition sourced from DfT Inclusive Mobility (2021).
Pedestrian guardrail	Standard railings typically used at edge of footway, to back of kerb, to prevent pedestrians excursion into the carriageway. Can be useful in limited circumstances; but is visually and physically intrusive, reduces the width of available footway, and can be dangerous for people riding bicycles on the carriageway, or crossing the carriageway on foot, who are denied a potential escape route. Definition sourced from CIHT Designing for Walking (2015).
Public highway	A highway over which public have right of access.
Public transport	Encompasses buses, trams, trains.
Protected cycle facility	Physically separated from general traffic - (i) in carriageway- by light means (e.g. wands or orcas, stepped, kerbed, (ii) separate from the carriageway.
Queue relocation	Relocation of queuing traffic to points in the network where buses may conveniently pass queuing traffic, through use of traffic signals, bus lanes, etc.

Term	Definition
Raised crossing	Raised crossing of side road; raised mid-link crossing; crossing at raised junction.
Red Route	Route / streets / corridor / where enhanced waiting and loading restrictions apply, indicated by red road markings, accompanied by red bordered vertical signage.
School street	A section of street adjacent to a school which is closed to through traffic at either end of the school day.
Shared use/shared use path	Facility / route within a street separate from the main carriageway, designated for the movement of both pedestrians and cyclists. Separate, delineated provision is preferred.
Shared space	Street with vehicular access with no level differentiation with no dedicated space allocated to different users e.g. vehicles, pedestrians.
Sheltered parking	Formalised parking with a build out, or lay-by.
Sheffield stand	A simple U shaped metal cycle stand (with a crossbar to act as a tapping rail at 150mm). First devised in Sheffield.
Shared Use Bus Boarder (SUBB)	A cycle track runs at footway height through a shared use bus boarding point, where pedestrians have priority.
SuDS	Sustainable Drainage Systems - e.g. green - rain gardens, SuDS enabled street trees; grey - interceptors, and separators.
Streets for All approach	An inclusive approach to street design, designing in a people-centred and context-sensitive way to make best use of the street space available.
Streets for All Guidance	The Streets for All Design Guidance encompasses documents set out in Figure 1.1.
Universally accessible	Universally accessible streets and places are where the design of the environment is usable by all people, to the greatest extent possible, without the need for adaptation or specialised design. Particularly focussed on access for disabled people. See Inclusive design.
Vehicle Restraint Systems (VRS)	Crash barriers, cushions etc. designed to prevent vehicles from leaving the carriageway, and typically used to protect structures and vehicles in locations where there could be specific dangers associated with leaving the carriageway.
Walking	The first and most important mode of transport to consider in any street design. Walking also includes use of mobility aids such as rollators, walking sticks, crutches. Can also include wheeled mobility aids, such as wheelchairs and mobility scooters, though these are sometimes referred to collectively as 'wheeling'.
Wands, Orcas	Forms of light protection for cycle lanes, wands - upright delineators / cylinders, mounted on carriageway surface, orcas - linear ground delineators, affixed to surface.
Wheeling	Refers to use of wheeled mobility aids, such as wheelchairs mobility scooters and walking frames. Wheeling is a term that many, but not all, disabled people identify with. It also includes prams, buggies and other modes of transport which may travel on footways, at speeds similar to walking. It excludes cycles and e-scooters.

A.7 Resource Library

Greater Manchester Streets for All Design Guidance

Active Travel — Footways

Active Travel — Cycling (forthcoming. Use current guidance in GM Interim Active Travel Design Guide.)

Bus Stops (forthcoming)

Bus Priority (forthcoming)

Sustainable Drainage - Streets and Highways (forthcoming)

Quick Reference Guides (forthcoming)

General

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DfT (2021) Guidance on the use of Tactile Paving Surfaces. Department of Transport.

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Edinburgh City Council (2020) Edinburgh Design Guide. Edinburgh City Council

GDCI (2016) Global designing cities initiative various guides. National association of City Transportation Officials New York.

Homes England (2022) Streets for a healthy life. Homes England.

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MCC (2012) Design for Access 2. Manchester City Council.

NACTO (2010) Designing Walkable Urban Thoroughfares: A Context Sensitive Approach. Institute of Transportation Engineers Washington, DC.

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TfL (2022) Streetscape guidance. 4th Edition Transport for London.

Greater Manchester local authority planning guidance

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Bury MBC (2008) Design and layout of new development in Bury – Development control policy guidance note 16. Bury Metropolitan Borough Council.

Manchester CC (2007) Guide to development in Manchester SPD and Planning Guidance. Manchester City Council.

Oldham MBC, Rochdale MBC (2007) Oldham and Rochdale Urban Design Guide SPD Oldham Metropolitan Borough Council. Rochdale Metropolitan Borough Council.

Tameside MBC (2007) Sustainable design & construction guide SPD. Tameside Metropolitan Borough Council.

Trafford MBC (2012) SPD3 Parking standards and design. Trafford Metropolitan Borough Council.

Trafford MBC (2022) Trafford Design Guide. Trafford Metropolitan Borough Council.

Salford CC (2019) Supplementary Planning Document Planning Obligations. Salford City Council.

Stockport MBC (2007) Sustainable Transport supplementary planning document. Stockport Metropolitan Borough Council.

Wigan MBC (2006) Access for All SPD. Wigan Metropolitan Borough Council.

Strategies and plans

DfT (2020) Inclusive transport strategy. Department for Transport.

GMCA (2021) The Greater Manchester Strategy 2021-2031. Greater Manchester Combined Authority.

GMCA (2021) Greater Manchester Transport Strategy 2040. Greater Manchester Combined Authority.

GMCA (2023) Places for Everyone. Greater Manchester Combined Authority.

GMCA (2021) Streets for All Strategy. Greater Manchester Combined Authority.

GMCA (2019) 5-year Environment Plan for Greater Manchester. Greater Manchester Combined Authority.

GMCA (2019) GM Local Industrial Strategy. Greater Manchester Combined Authority.

GMICP (2023) Improving health and care in Greater Manchester 2023-2038. Greater Manchester Integrated Care Partnership.

MCC, SCC, TfGM (2022) City Centre Transport Strategy. Manchester City Council, Salford City Council, Transport for Greater Manchester.

PHE (2019) Public health England Strategy 2020 to 2025. Public Health England.

TfGM (2021) Bus Service Improvement Plan. Transport for Greater Manchester.

TfGM (2023) Greater Manchester Bus Strategy. Transport for Greater Manchester.

Legislation and regulations

- Equality Act 2020 (including public sector equality duty)
- Highways Act 1980
- Levelling-up and Regeneration Act 2023
- Planning and Compulsory Purchase Act 2004
- Town and Country Planning Regulations 2012
- Traffic Management Act 2004
- Traffic Signs Regulations and General Directions 2016
- DLUHC (Sep 2023) National planning policy framework

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Arup et.al (2022) Walking for Everyone: Making walking and wheeling more inclusive. Arup, Living Streets, Sustrans.

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TfL (2014) London cycling design standards. Transport for London.

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TfL (2017) Accessible bus stop design guidance. Transport for London.

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CIRIA (2017) Guidance on the construction of SuDS (C768).

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Atkins (2021) Getting home safely – Safe by design by Women transport planners. Atkins.

Navarrete-Hernandez, P. Vetro, A. Concha, P. (2021) Building safer public spaces: Exploring gender difference in the perception of safety in public space through urban design interventions. Landscape and Urban Planning, volume 214.

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A.8 List of Figures

A.9 List of Tables


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