

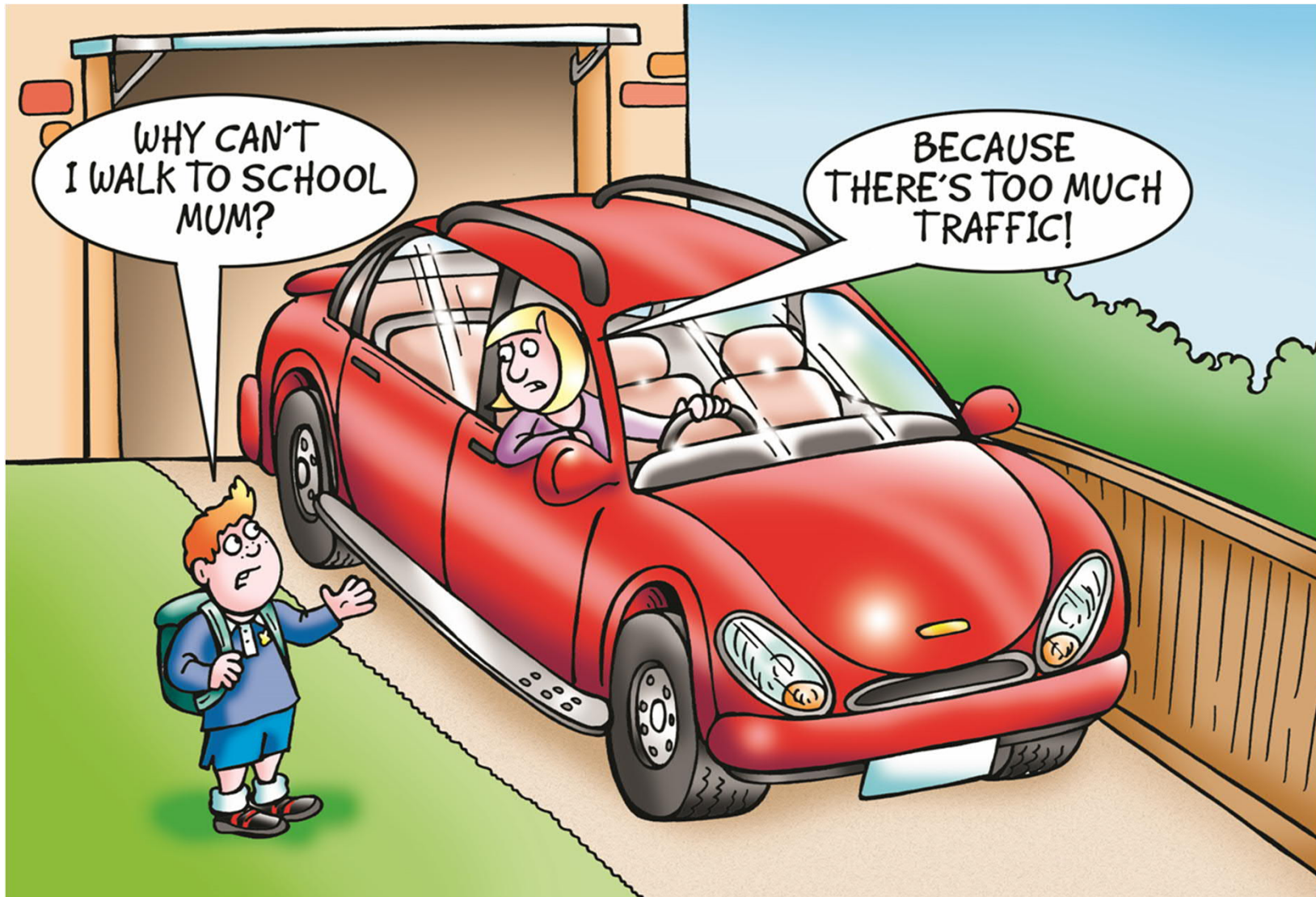
Essex County Council Sustainable Transport School Design Guide

Guide prepared by Jacobs / Essex Highways

December 2020



Essex County Council



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How To Navigate This Guide

1. **Guide Principles** – the foundation for the development of this Guide
2. **School Typologies** – description of the Ideal School Design Scenario (New Secondary School in a New Community) and five other typologies
3. **Key Challenges and Objectives** – key considerations addressed by the Guide
4. **Optimal Design for the Ideal School Design Scenario (New Secondary School in a New Community)** – the main focus of the Guide, setting out the Design Principles for the Ideal School Scenario
5. **Adaptations for other Schools** – a high-level consideration of how the Design Principles for Ideal School Design Scenario can be adapted for the other five typologies

Annex A: **Relevant Guidance and Documents**

Annex B: **Examples of Good Practice**

Annex C: **Practical Design Advice**

1. Guide Principles



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Guide Principles

1. Encouraging active and sustainable travel to improve the health and wellbeing of young people
2. Creating a sense of place through a safe and welcoming environment at the school entrance and within the surrounding school neighbourhood
3. Reducing congestion and road hazards whilst increasing physical activity opportunities for young people by dispersing school drop-off and pick-up
4. Breaking down barriers between schools and their surrounding communities, opening up schools for wider community uses, engagement and interactions to maximise use of the site and facilities



2. School Typology



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School Typology

This guide sets out recommended means of increasing sustainable travel to / from schools beginning with an 'ideal type':

- **New secondary school in a new community**

Further guidance is provided in terms of adjusting those measures for the 'ideal school scenario' to other schools based on the following typology:

- **New primary school in a new community**
- **New secondary / primary school in an existing urban community**
- **New secondary / primary school in an existing rural community**
- **Retrofit secondary / primary school in an existing urban community**
- **Retrofit secondary / primary school in an existing rural community**

As such, this guide provides relevant advice for all types of schools.

3. Key Challenges and Objectives



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Key Challenges

Negative impacts of car trips to / from schools:

- Sedentary lifestyle health and wellbeing issues
- Air pollution in and around schools
- Road dangers for pupils (and others) around schools
- 'School run' traffic congestion
- Parking pressures within and around schools

Challenges in encouraging sustainable modes:

- Engagement with pupils, parents / guardians and staff
- Nearby residents supporting and complying with restrictions
- Cost of implementing high-quality measures
- Some areas may lack safe, accessible alternatives to the private car
- Covid-19 may discourage some from using public transport

Objectives

- Promote school travel choices based on the following hierarchy:
 - Walking, scooting or cycling – ‘Active Travel’
 - Bus or train
 - Car sharing with students from other homes
 - ‘Park-and-stride’ – parking away from the school and walking 1km
- Produce guide for the design of the physical environment around schools to promote active and sustainable travel to school
- Design to discourage car trips to school by parents / guardians, pupils and staff
- Reduce air pollution and road danger near schools

4. Optimal Design for the Ideal School Design Scenario

Measures for new secondary schools in new communities



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Measures – School and Community Zones

In consultation with stakeholders, we have formulated measures based on a number of 'zones' moving away from a new secondary school:

Zone 1 – School Entrance Street

Zone 2 – Radial Walking and Cycling Routes

Zone 3 – Car-Free Zone (at school start and end times)

Zone 4 – Bus Stop Zone

Zone 5 – School Drop-off / Pick-up Areas



Definition of 'Car-Free' Streets and Zones

- In this guide, the term 'car-free' refers to streets that are either designed for walking and cycling only, or where traffic is banned at least during school start and finish times in order to ensure safe travel to and from school.
- 'Car-free' can therefore be considered as anything from a neighbourhood where cars are excluded at all times, to one designed primarily for pedestrians and cyclists but where cars are allowed to be driven at certain times (though never during school run times).
- 'Low-traffic neighbourhood' and 'home zone' are similar terms.
- Residents can be allowed to own a car, with parking provided either in residential streets or in a car-park fairly nearby.

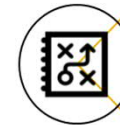


Zone 1 – School Entrance Street

Zone 1 – School Entrance Street

Design Principles:

- Permanently traffic-free (along with all streets within a 1km radius during school run times)
- School entrance/s for pedestrians should be located to improve accessibility and sense of place – consider a public square just outside each entrance
- Design out car drop-offs and picks-ups by creating the car-free zone of 1km radius
- Provide design cues that this is a school entrance street (e.g. school signage, artwork created by pupils, planters, street trees, cycle parking, etc)
- Good crossing points across cycle paths for pedestrians
- Widened footways (minimum 2 metres)
- Low-level (pedestrian-focused) street lighting
- Cycle parking for long and short stays near entrance
- Separate traffic entrance/s should be provided for permitted vehicles (staff, deliveries, maintenance, emergency services, as well as disabled access)



Direct – shortest, quickest route to minimize delay



Safe – the route must be safe and feel safe



Coherent – joined up and easy to follow



Attractive – enhance the existing streetscape

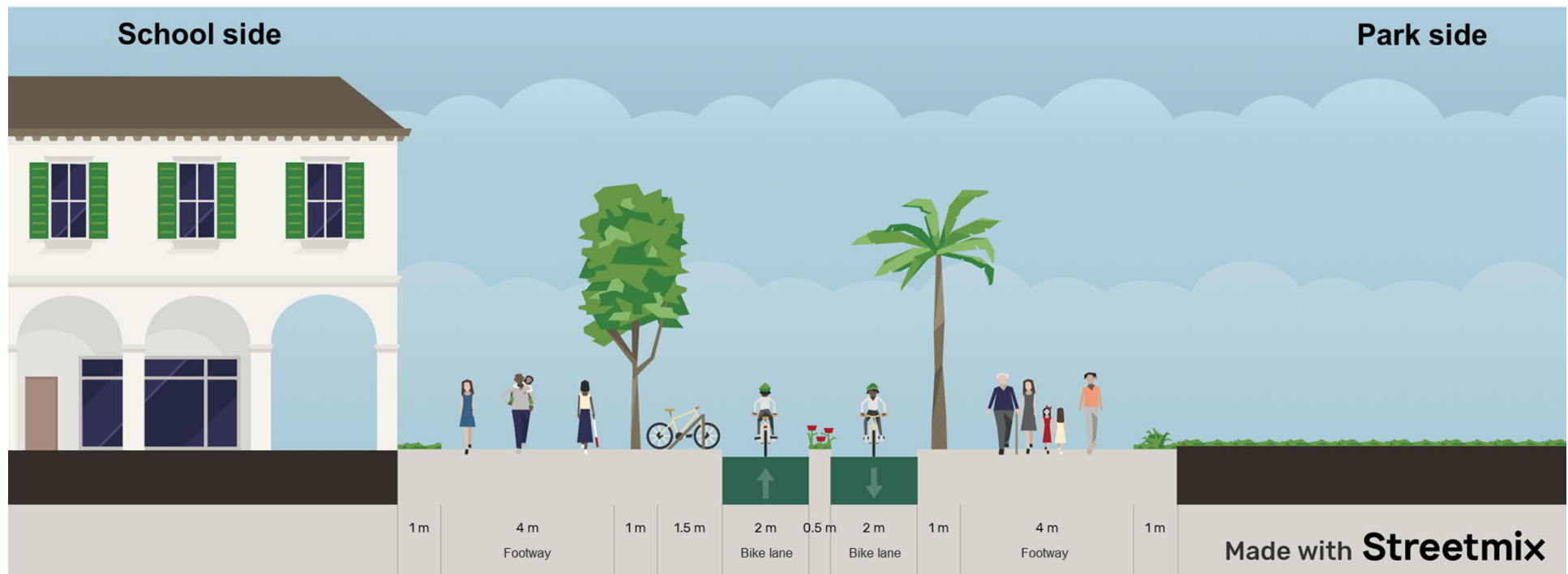


Comfortable – clean, smooth surface in all weathers



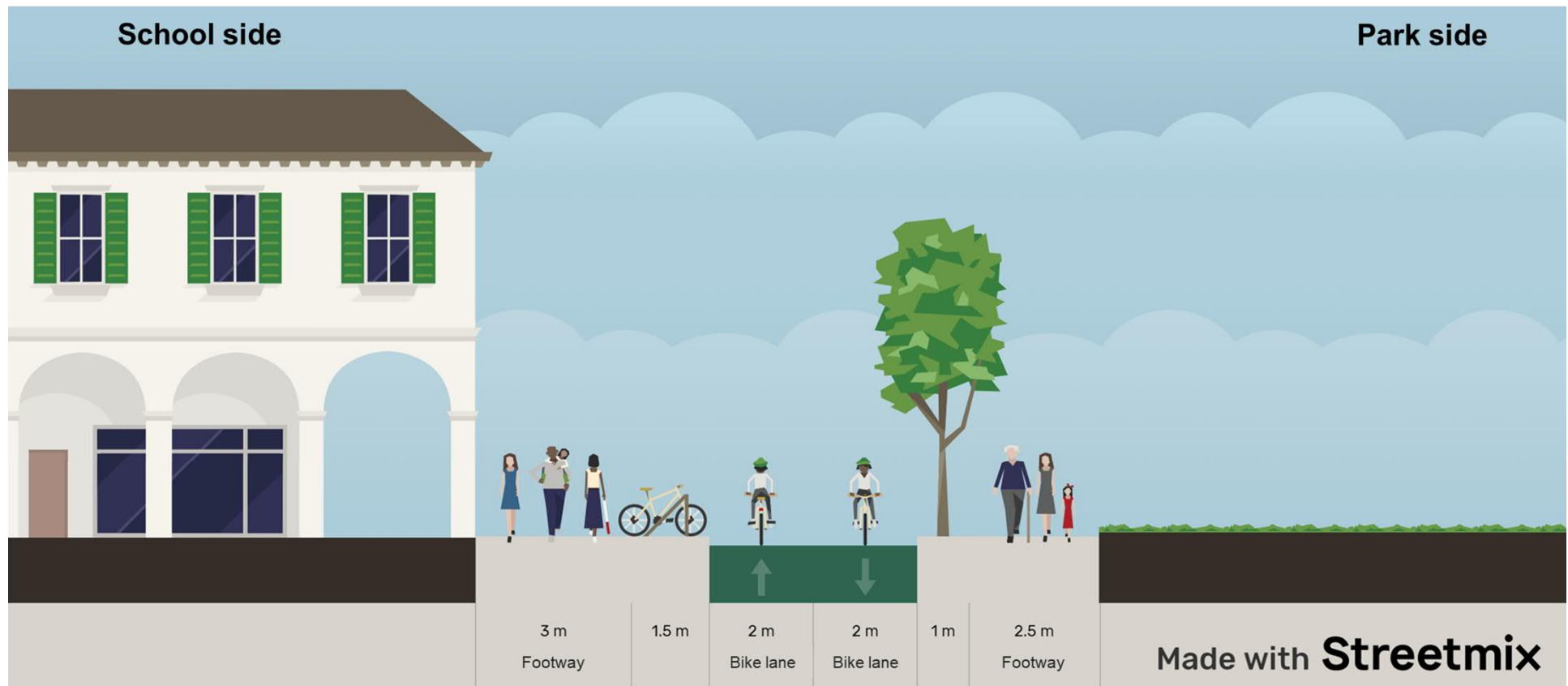
Accessible – for all users

Zone 1 – School Entrance Street (18m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

Zone 1 – School Entrance Street (12m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

Zone 2 – Radial Walking and Cycling Routes



Zone 2 – Radial Walking and Cycling Routes

Design Principles:

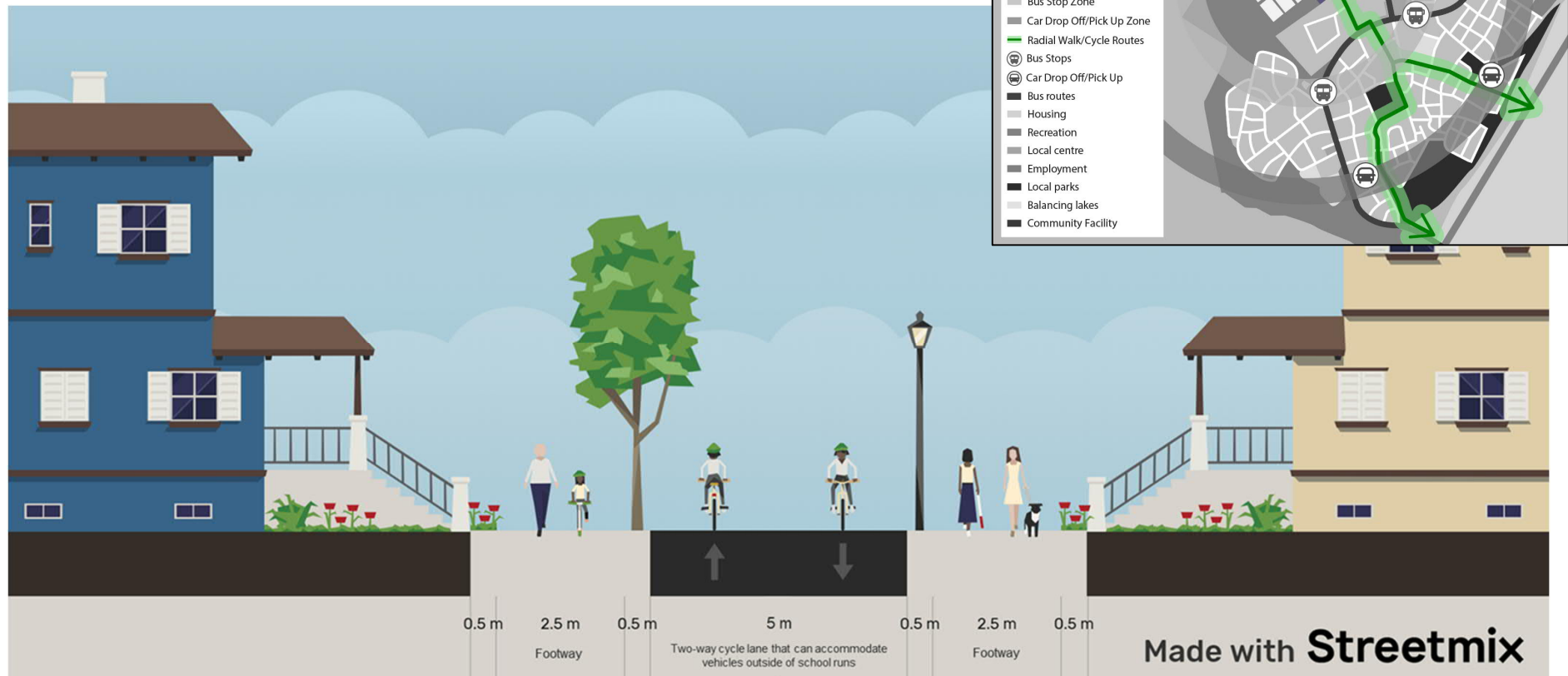
- Within 1km of the school, streets will either consist of wide footways on either side of wide cycle paths, or low-speed streets designed primarily for pedestrians and cyclists but intended to accommodate cars at specific times (outside of school opening and closing times)
- Walking and cycling routes within the 1km car-free zone should link to key routes beyond the garden community boundary
- For new streets within a new garden community, segregated cycle lanes are mandatory on all cycling routes
- Where a route is also used by pedestrians, separate facilities should be provided for pedestrian and cycle movements
- Pedestrian priority should be designed into all designated walking routes
- Where possible, walking and cycling routes should be fun and engaging, passing through green spaces and near amenities and places of interest
- Footbridges and subways should be avoided as they can be (or can be perceived to be) potentially hostile environments
- The following slides show sample cross-sections for a radial walk / cycle routes through a green space and a residential street

Zone 2 – Radial Walking / Cycling Route (8m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

Zone 2 – Radial Walking / Cycling Route (12m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

Zone 2 – Walking Route Design Principles

- Provide seating / benches or 'parklets' (parking bays converted into small public spaces) to encourage more outdoor activity where possible along walking routes
- Pedestrian refuges and kerb build-outs effectively narrow the carriageway and reduce the crossing distance (e.g. where walking routes cross bus-only routes through the car-free zone)
- Pedestrian crossings raised to footway height where buses or occasional traffic access is present (e.g. signalised / formal / informal crossings)
- Footway surfacing of contrasting colour can emphasize pedestrian priority
- Tactile paving should be used to indicate the change in condition to visually impaired pedestrians
- Use high-quality slip-resistant pedestrian surfacing for safe active travel
- Pedestrian desire lines should be kept as direct as possible at crossings
- Design junctions with tight corner radii to minimise the need for pedestrians to deviate from their desire line and to slow down turning vehicles
- Provide consistent and legible wayfinding on key walking routes

Zone 2 – Cycling Route Design Principles

- Routes should be direct and barrier-free for cyclists – cyclists are more likely to choose direct routes that enable them to keep moving
- Cycling to be prioritised by default on designated routes (aside from in relation to the movements of pedestrians)
- Off-road cycle tracks are more suited to leisure routes through open spaces
- Ensure lane width is sufficient for social cycling – e.g. two cyclists side by side
 - A typical cyclist is about 0.8m wide at shoulder / handlebar and needs at least 0.2m for balance to keep a straight line when in motion at over 7mph
 - Two cyclists travelling side by side (on a level surface) therefore require a minimum space of 1m each, plus ideally 0.5m separation between them (total 2.5m each direction where possible instead of the minimum 2.0m)
- Exceeding minimum widths will support use of cargo bikes, adult tricycles, etc
- Headroom on cycle routes should normally be 2.7 metres (minimum 2.4m)
- A cycle route with a steep gradient may be better than none at all, but maximum gradients should generally be no more than 3% to 5% (over a distance of 100m or less)
- Cycle routes should aim to cater for cyclists of all abilities

Zone 3 – Car-Free Zone



Zone 3 – Car-Free Zone

Design Principles:

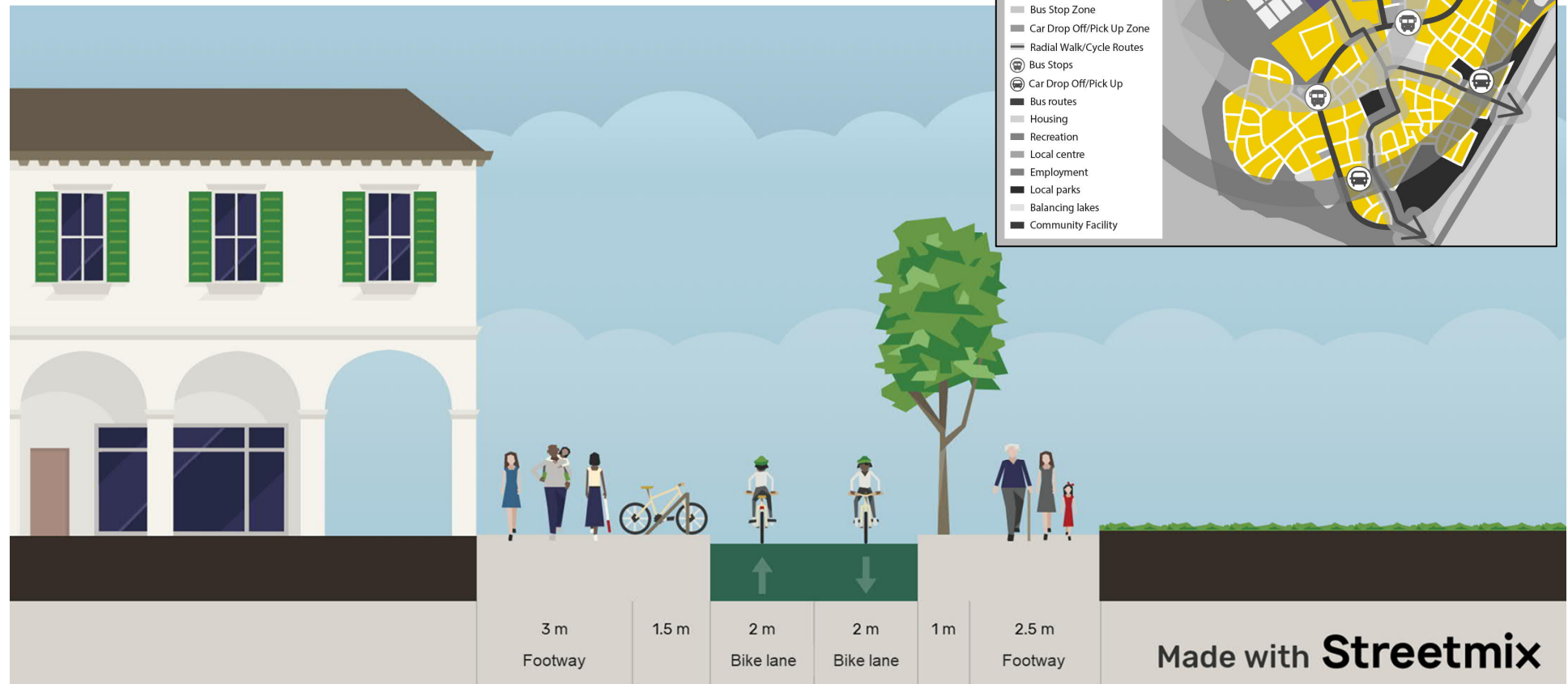
- All streets within a 1km radius of the school should be traffic-free at least during school opening and closing times to ensure school children can travel safely to and from school and prevent drop off / pick up closer to school.
- Car-free zone will prevent school drop-offs and picks-ups by car, and exclude other vehicles from the school vicinity
- Wide footways (minimum 2 metres) on either side of wide cycle paths (minimum 2 metres)
- Pedestrian priority, with safe and clear crossing points across cycle paths for pedestrians
- Low-level (pedestrian-focused) street lighting to promote safety and security
- Neighbourhood designer / developer will need to consider how deliveries, removals, construction access and disabled drivers will be facilitated across the car-free zone during road closure periods
- A separate school entrance for permitted vehicles should be provided, but access should not bring traffic through the car-free zone
- Car sharing and consolidated delivery points can help to reduce private car use

Zone 3 – Car-Free Zone (18m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

Zone 3 – Car-Free Zone (12m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

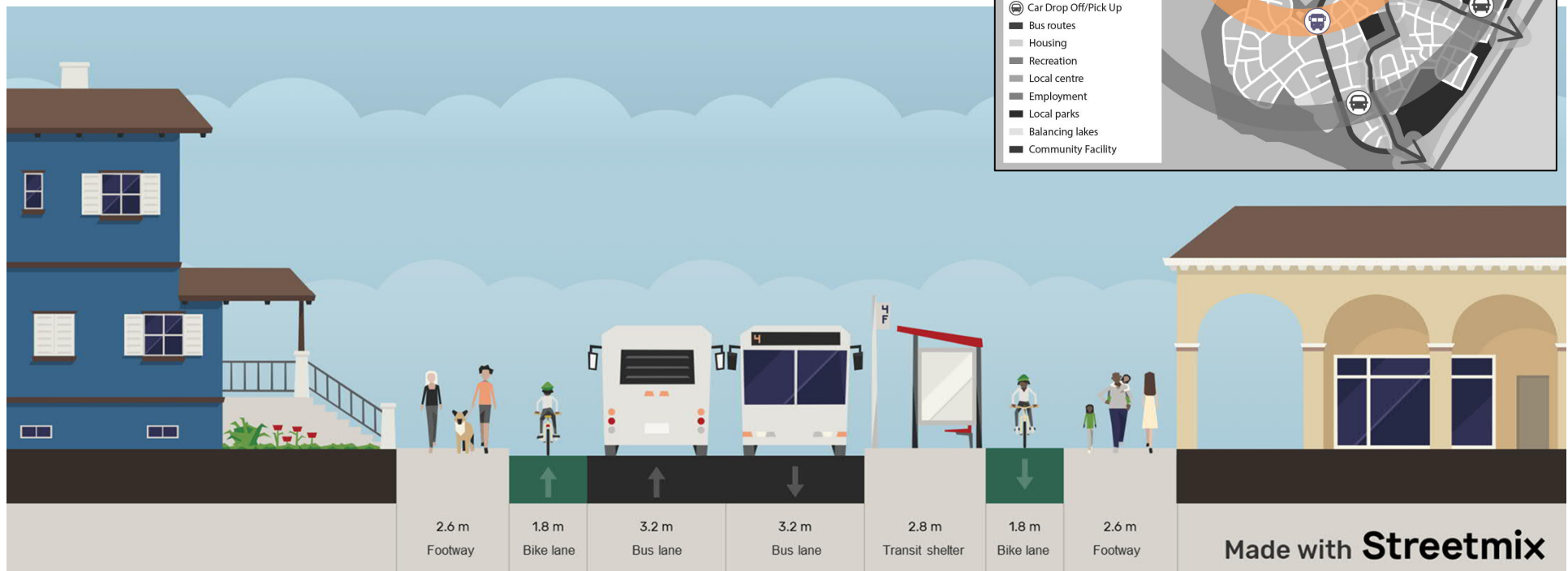
Zone 4 – Bus Stop Zone



Zone 4 – Bus Stop Zone

- Bus stops should be located so that bus routes do not pass too close to schools – 400 to 500m (approximately 10 minutes walk) is a reasonable walking distance, reducing air pollution and traffic volumes near schools
- Bus stops should be sited so they can be easily accessed by all pedestrians
- Bus stops should be placed near junctions so that they can be accessed by more than one route on foot, or near specific passenger destinations
- The bus should generally stop on the street and not in a lay-by
- Bus stops should be high-quality places that are safe and comfortable to use – real-time bus arrival screens let passengers know when a bus will arrive
- Footways at bus stops should be wide enough for waiting passengers while allowing for pedestrian movement along the footway – this may require local widening at and around the stop
- Provision should be made within the streetscape for features that assist passengers getting on and off buses – this may involve raised footways
- Bus stops should have seating, shelter and cycle parking facilities
- Overall street design should protect access to, from and around the bus stop for people with disabilities

Zone 4 – Bus Stop Zone (18m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

Zone 5 – School Drop-off / Pick-up Areas

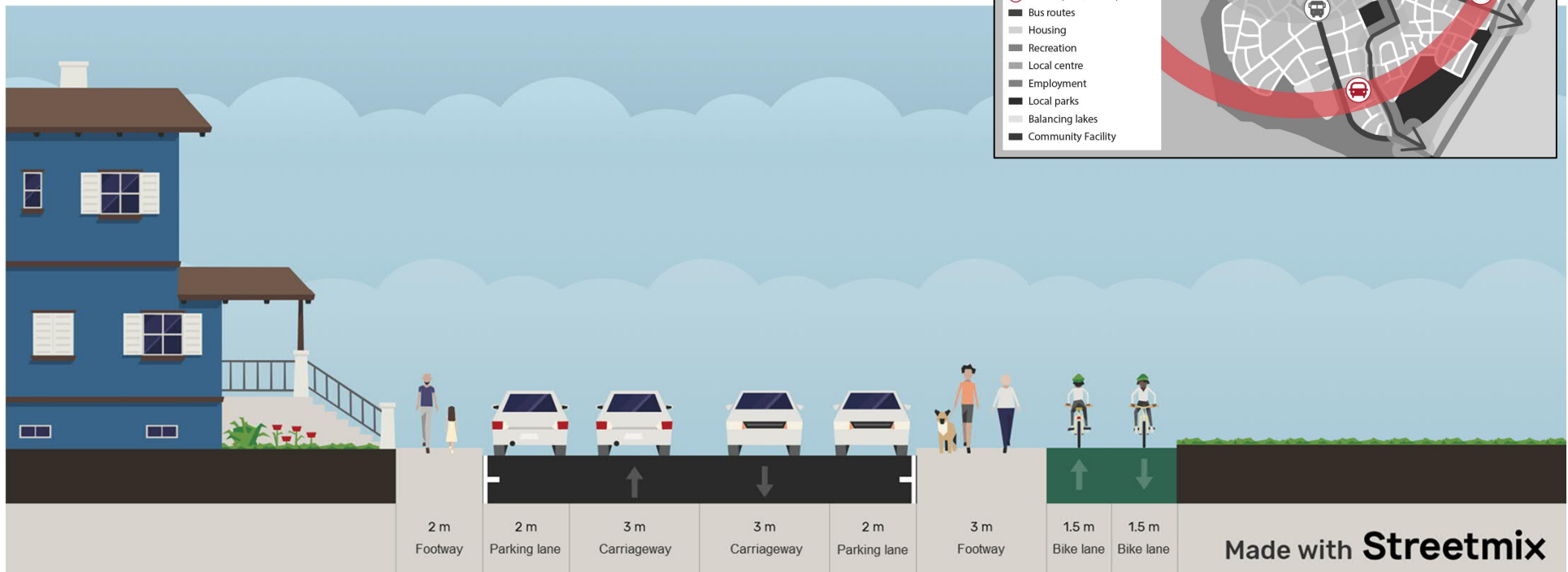


Zone 5 – School Drop-off / Pick-up Areas

- 1km car-free zones will restrict dropping-off and picking-up from the streets adjacent to the school and within the zone
- School admission decisions cannot necessarily be influenced, so some pupils require driving to school
- Agree specific locations at the edge of the car-free zone from all directions around the catchment
- Provide adequate supply of drop-off areas so that each area is not over-subscribed
- Drop-off zones should have cycle parking
- Locating drop-off / pick-up areas next to a park will help avoid conflicts with residential and other parking demand
- Location of drop-off areas should take into account other schools nearby
- Consider other uses for these areas – e.g. park access or loading



Zone 5 – School Drop-off / Pick-up Areas (18m width example)



[Note: Tree location, street furniture and types of buildings are indicative.]

5. Adaptations for Other Schools



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Adaptations for Other School Types

- The previous section set out the design approach that is expected for new secondary schools in new garden communities.
- For other types of schools, not all recommended measures will be possible in every situation.
- This section summarises how the measures set out in the previous section for a new secondary school in a new garden community could be adapted to suit other 'less ideal' school design situations.
- The five 'zones' referred to in the previous section are used here as the basis for setting out the types of measures that could be explored.
- Where a measure may be challenging to apply to a particular type of school, a note is provided setting out alternative approaches that may be more suitable.
- Green indicates that the ideal typology approach should be applicable.
- Amber indicates that some adjustment or adaptation may be required.

School Entrance Street

Typologies	Full restriction of cars to 1km radius at school runs	Wide footpaths (+2.5m)	Wide cycle paths (+1.5 each way)	Segregated Walk / Cycle routes	Ped-focused street lighting / safety and security	Separate traffic entrance	Public street art
Ideal (new secondary, new community)	✓	✓	✓	✓	✓	✓	✓
New primary (new community)	Consider access to drop-off zones slightly closer to school	✓	✓	✓	✓	✓	✓
New secondary / primary (existing urban community)	School hours only (or school opening / closing times)	Subject to street width and public consultation			✓	✓	✓
New secondary / primary (rural area)					✓	✓	✓
Retrofit secondary / primary (existing urban community)	Cars restricted at school opening / closing times (local access exempt)				✓	It may be possible to provide a vehicle-only entrance	✓
Retrofit secondary / primary (rural area)					✓		✓

Adaptations – School Entrance Street

- If the school entrance street has existing residents, or commercial premises, traffic cannot be removed completely
- Dialogue with residents / businesses is essential, emphasising that improvements to road safety and pollution levels for the school will also benefit neighbours
- Temporary traffic restrictions can be proposed, either for the school day or just for the school drop-off and pick-up periods
- Exemptions for residents of the school entrance street can be proposed, either allowing them exit-only access out of the street in the morning or two-way access at all times (using ANPR cameras if applicable)
- If businesses object due to loss of access for their customers or staff, consider creating a new school entrance on an adjacent street
- Wide footpaths and segregated cycle lanes may be an option (based on radial walk and cycle route examples below), subject to consultation
- Creating a separate traffic entrance for the school can at least remove some traffic from the main pedestrian entrance street

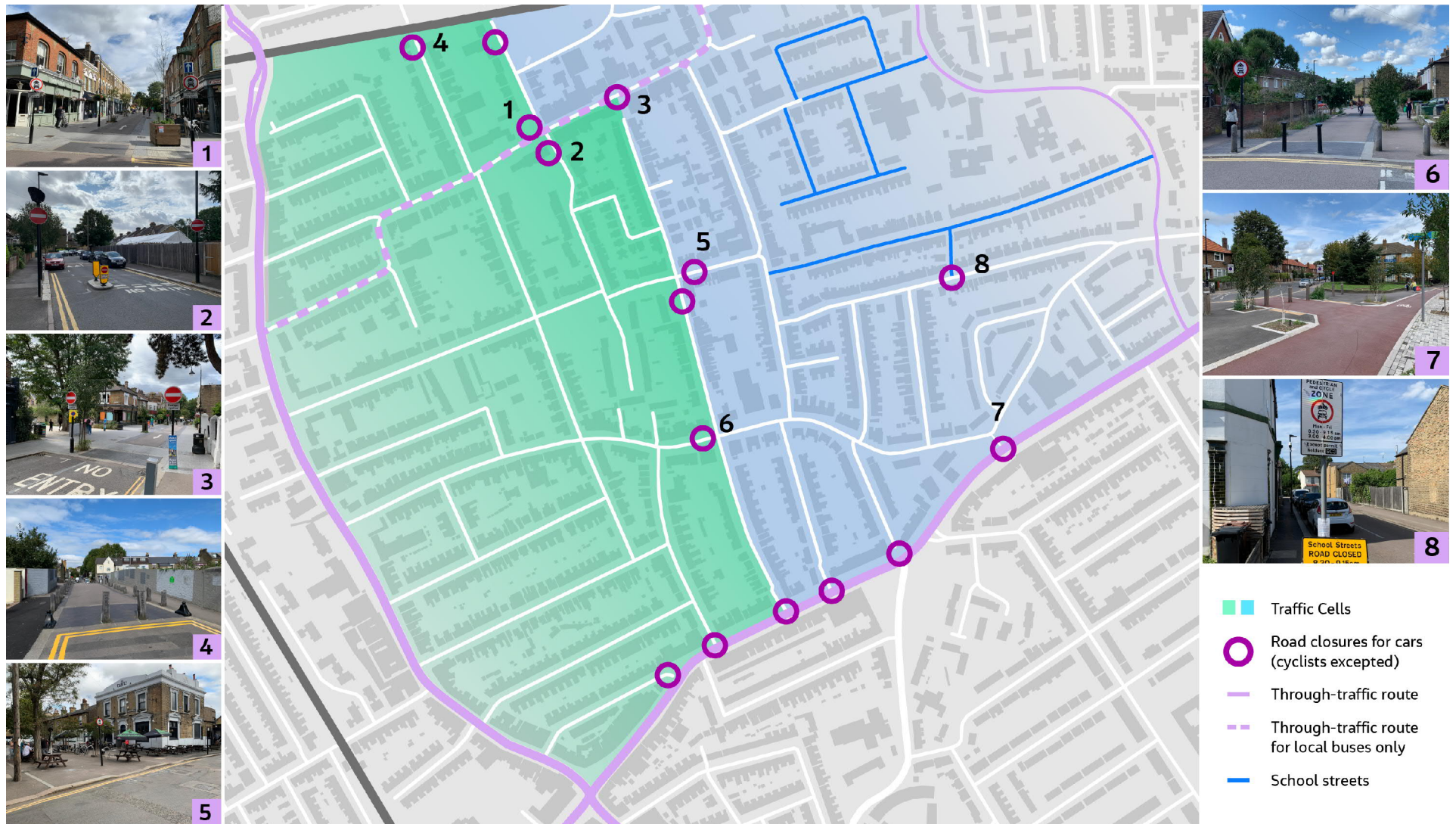
Car-Free / Low-Traffic Neighbourhoods

Typologies	Traffic Measures Options				Wide footpaths (+2.5m)	Wide cycle paths (+1.5 each way)	Segregated Walk / Cycle routes	Barrier-free / direct routes for cyclists	Ped-focused street lighting / safety and security
	Full restriction of cars to 1km radius at school times	Low speed environment	Traffic cells to reduce traffic	Dedicated residents' parking at edge of neighbourhood					
Ideal (new secondary, new community)	✓	✓	✓	✓	✓	✓	✓	✓	✓
New primary (new community)	Consider access to drop-off zones closer to school	✓	✓	✓	✓	✓	✓	✓	✓
New secondary / primary (existing urban community)	School hours only (or school opening / closing times) – local residents can be exempt if necessary	Implement 20mph zones	Consider permanent road closures to vehicles (cyclists exempt), or at least during the school run	Difficult to remove existing vehicle access and parking, but some residents may be willing to park in new car parks instead of in front of their homes, and shared car use can be encouraged to reduce parking	Subject to street width and public consultation			Dependent on street usage and traffic measures for cycling provision availability	✓
New secondary / primary (rural area)									✓
Retrofit secondary / primary (existing urban community)									✓
Retrofit secondary / primary (rural area)									✓

Adaptations – Low-Traffic Neighbourhoods

- As with the school entrance street, existing residents are unlikely to support the restriction of all cars at all times from existing streets
- Through dialogue with local residents and businesses, it may be possible to minimise the negative impacts of local traffic by implementing 'low-traffic neighbourhoods', providing mutual benefits for the wider community
- **Modest option:** General traffic reduction measures to reduce traffic speeds and make junctions and crossings safer, with 'school streets' treatment closer to the school (see example next slide)
- **Enhanced option:** Creation of traffic cells using modal filters to prevent through-traffic and prioritise access for cyclists (see example next slide)
- Traffic restrictions can be permanent or time-based (full school day or just for school drop-off and pick-up periods), depending on levels of support
- Exemptions for residents of the local neighbourhood can be considered if necessary to overcome opposition, but the benefits will be watered down as only rat-running through traffic would be affected
- Wide footpaths and segregated cycle lanes can be proposed for busier local streets, and 'quiet lanes' treatment can make cycling safe without segregation for smaller streets with less traffic

Waltham Forest Low-Traffic Neighbourhoods



Traffic cells and school streets reduce through-traffic in Walthamstow, East London

Bus Stop Arrangements on Bus Access Road

Typologies	Through access for buses only	Accessible bus stops / footpaths	Quality waiting areas	Stops not too close to schools (400 to 500 metres)	Stop on street and not in lay-bys	Wide pavements around bus stops
Ideal (new secondary, new community)	✓	✓	✓	✓	✓	✓
New primary (new community)	✓	✓	✓	✓	✓	✓
New secondary / primary (existing urban community)	Other through-traffic could be restricted subject to public support during consultation; introducing new buses would be conditional on current road widths	✓	✓	✓	Existing lay-bys for bus stops could be removed (subject to traffic impacts)	Subject to existing space and / or reallocation of street spaces
New secondary / primary (rural area)		✓	✓	✓		
Retrofit secondary / primary (existing urban community)		✓	✓	Can remove or relocate existing bus stops, but bus routes will still exist unless modified		
Retrofit secondary / primary (rural area)		✓	✓			

Adaptations – Bus Access

- Permanent or temporary restrictions for general traffic can be considered on key bus access routes near schools, subject to dialogue and consultation
- Point-no-entries for general traffic or other ‘bus gates’ at key junctions in a low-traffic neighbourhood can allow buses closer to the school but keep out general traffic, at all times or during the school run
- If buses share streets with other traffic, consider bus priority measures to ensure bus services are not impacted by traffic congestion
- Wide footpaths and segregated cycle lanes can be proposed in place of removed parking or existing bus lay-bys (based on example layouts for radial walking and cycling routes)
- To increase the physical activity for pupils and slightly reduce bus-based pollution, bus stops very near the school can be relocated further away

School Drop-off / Pick-up Areas

Typologies	Located 1km walk away from school	Located on edge of development / near main roads	Parking pressures to increase active travel
Ideal (new secondary, new community)	✓	✓	✓
New primary (new community)	Consider access to drop-off zones closer to school (e.g. 400m)	✓	✓
New secondary / primary (existing urban community)	Integrated with existing parking the appropriate distance from the school		✓
New secondary / primary (rural area)			✓
Retrofit secondary / primary (existing urban community)			✓
Retrofit secondary / primary (rural area)			✓

Adaptations – School Drop-off / Pick-up Areas

- Drop-off and pick-up areas can only be moved as far from the school as traffic and parking restrictions will allow
- School Streets boundaries should be chosen based on where drop-offs and pick-ups can be safely accommodated just outside of the restricted streets
- Best locations will still be where conflict with existing residents is minimised, ideally next to parks and open space
- Parking restrictions and pricing should be considered carefully, taking into account the age and type of students likely to be dropped-off and picked-up there, how far the area is from the school, if there are multiple schools in the area, wider parking controls, and the level of parking congestion within the wider area or Controlled Parking Zone
- Can be free parking or pay-and-display, but limiting stays to 20 or 40 minutes will keep bays free for drop-off and pick-up
- Space can be dedicated to other uses outside of school opening / closing times, such as pay-and-display parking for access to the open space

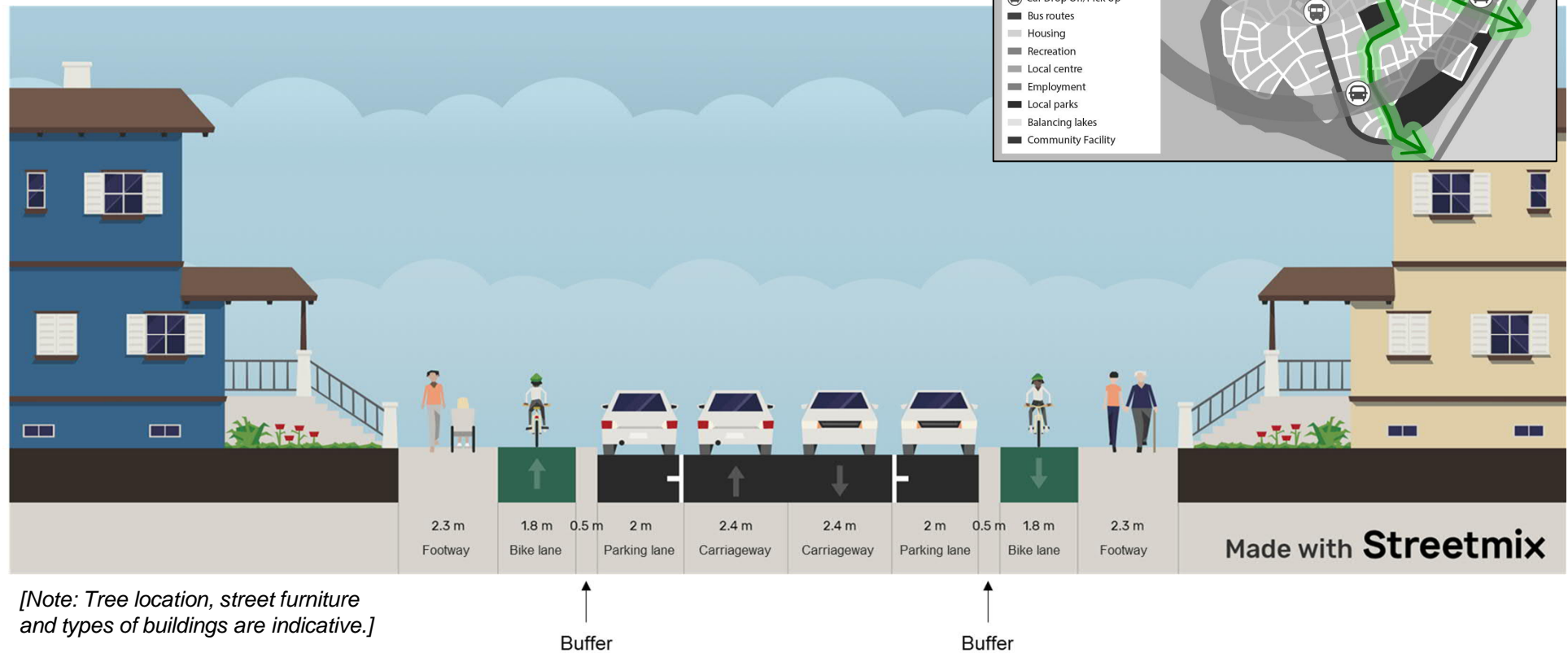
Radial Walking and Cycling Routes

Typologies	Segregated Walk / Cycle routes	Wide footpaths (+2.5m)	Wide cycle paths (+1.5 each way)	Rest stops / benches / bicycle parking	Interesting cycle features (bumps, ramps, etc)
Ideal (new secondary, new community)	✓	✓	✓	✓	✓
New primary (new community)	✓	✓	✓	✓	✓
New secondary / primary (existing urban community)	Subject to street width and public consultation			Subject to street width and available space	
New secondary / primary (rural area)					
Retrofit secondary / primary (existing urban community)					
Retrofit secondary / primary (rural area)					

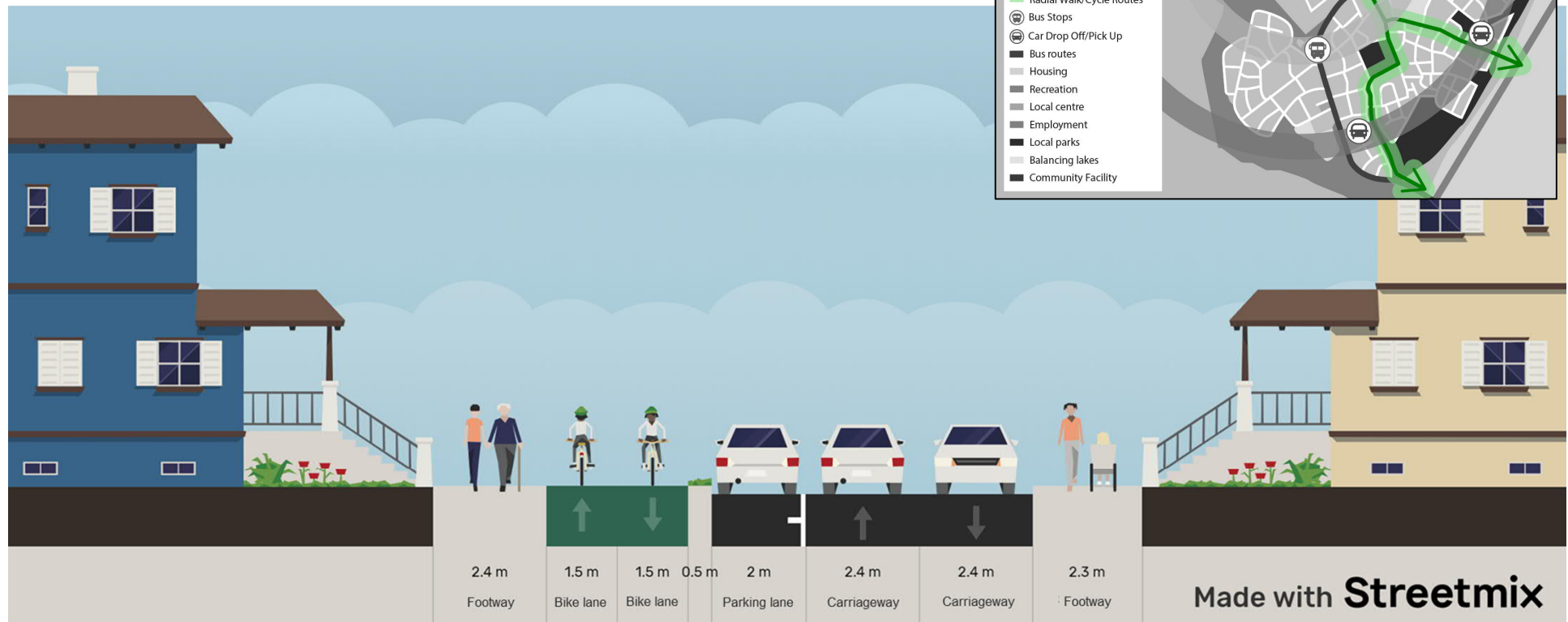
Adaptations – Walking and Cycling Routes

- For 'non-ideal' school scenarios, full car-free restrictions are unlikely to be possible across much of a 1km radius from the school
- Priority space can still be given to pedestrians and cyclists with wide footways and cycle paths
- Space for cars including traffic lanes and parking bays (e.g. on one side) must be limited, depending on the street width and public engagement
- Buffers are required to allow space between cyclists and opening car doors
- Where a cycle route must be signal-controlled, provide cycle-only signals, advanced stop lines and coloured surfacing showing the likely route of cyclists across the junction
- Conversion of existing footways to shared use should only be considered when options that reallocate carriageway or other (e.g. verge) space for cyclists have been rejected as unworkable
- The following street cross-sections show a variety of street layout options for providing safe walking and cycling facilities on existing traffic streets

Radial Walk / Cycle Route 18m



Radial Walk / Cycle Route 15m



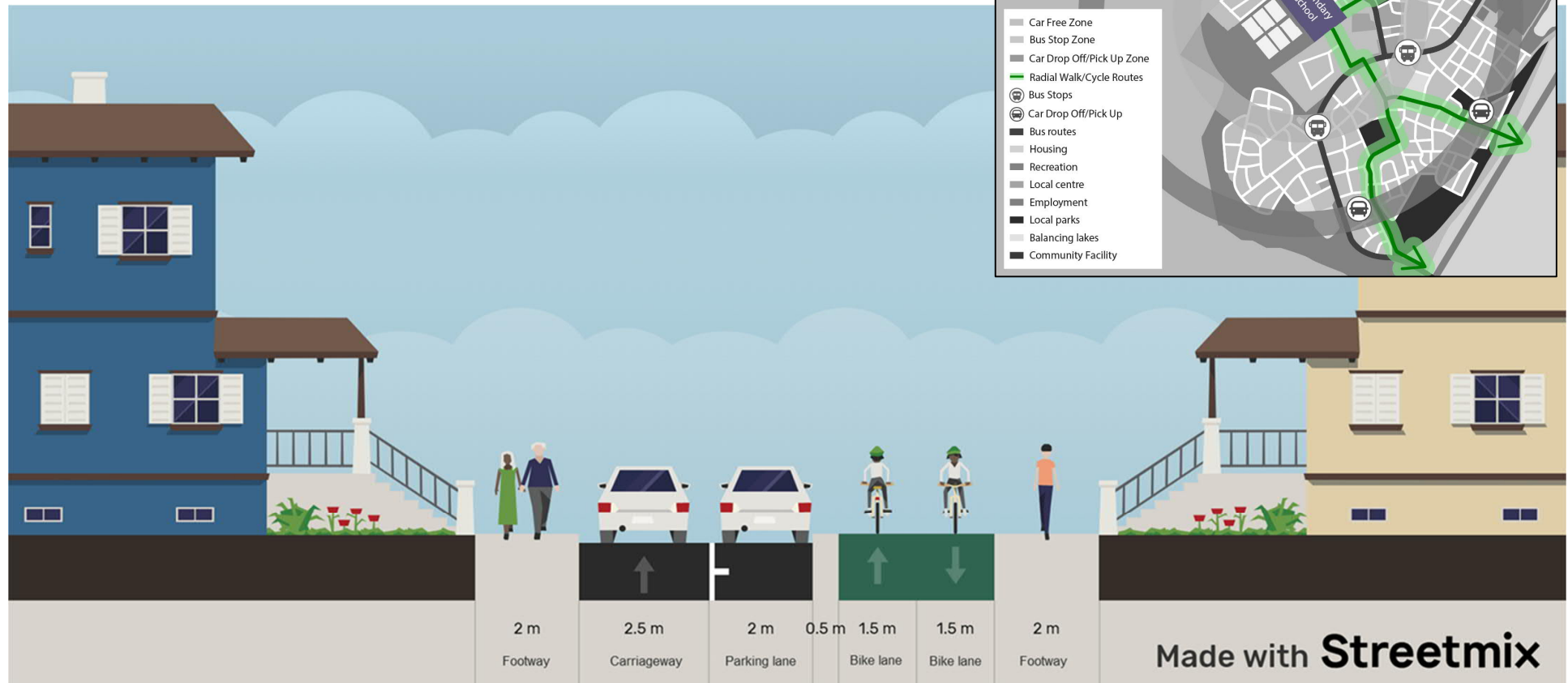
Made with **Streetmix**

[Note: Tree location, street furniture and types of buildings are indicative.]

Could be shared pedestrian / cyclist lane

Buffer

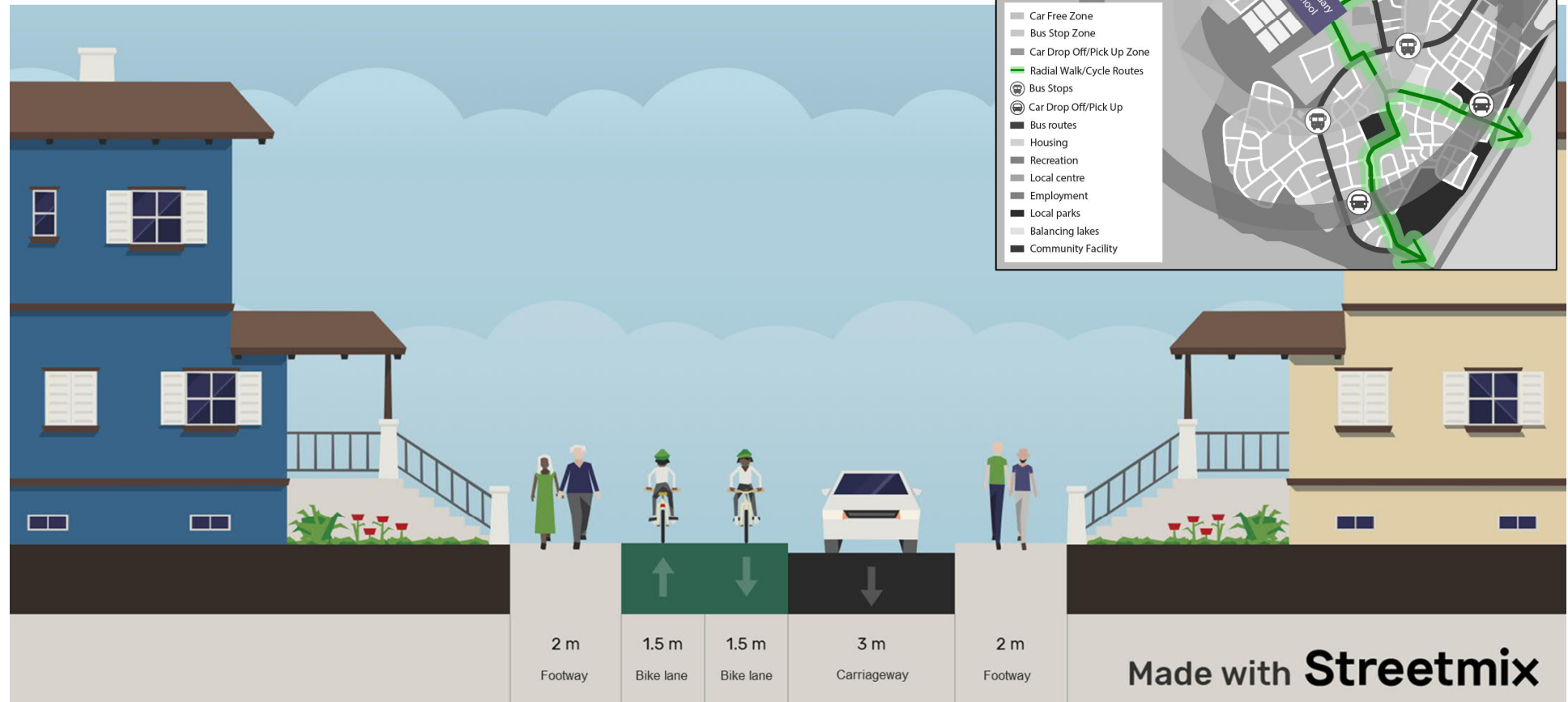
Radial Walk / Cycle Route 12m



[Note: Tree location, street furniture and types of buildings are indicative.]

Buffer
Could be shared pedestrian / cyclist lane

Radial Walk / Cycle Route 10m

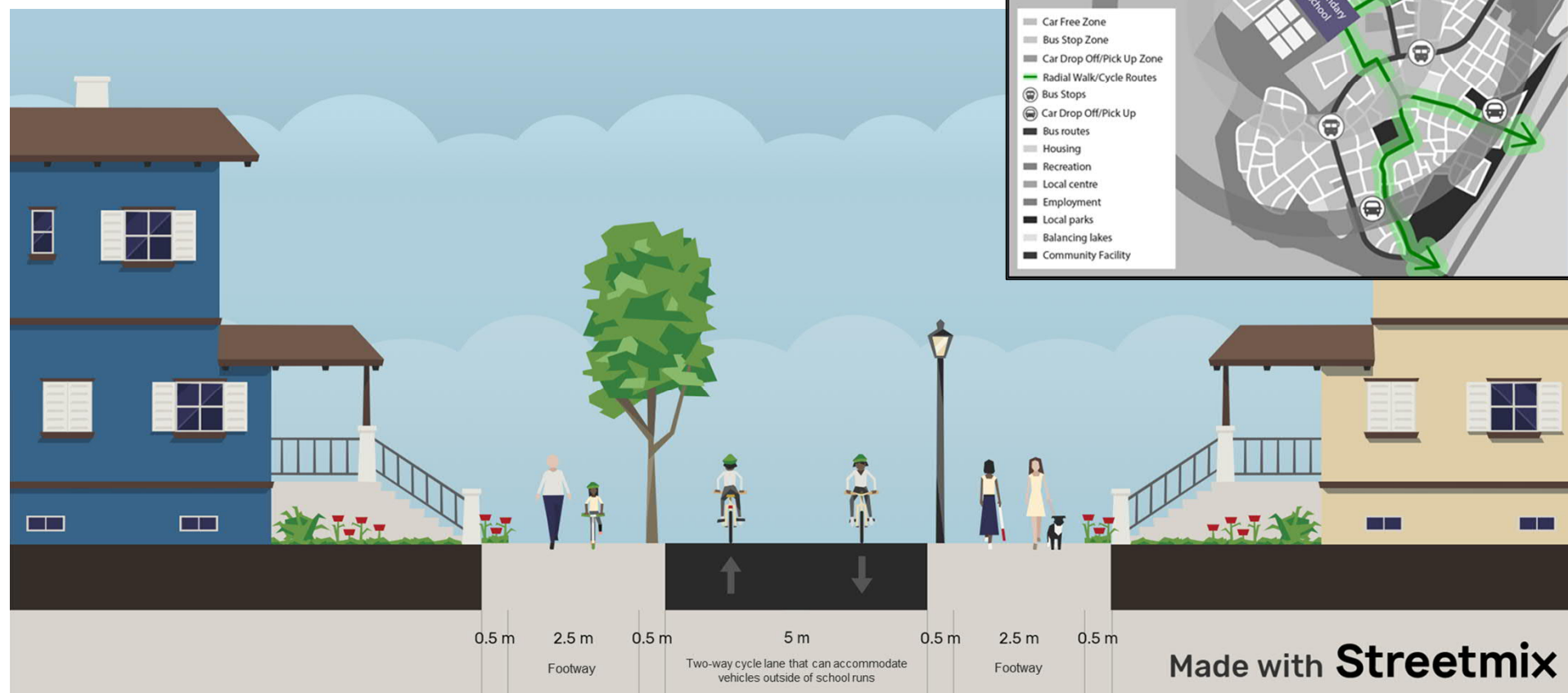


[Note: Tree location, street furniture and types of buildings are indicative.]

Could be shared pedestrian / cyclist lane

Two-way

Radial Walk / Cycle Route 12m



[Note: Tree location, street furniture and types of buildings are indicative.]

Annex A: Relevant Guidance and Documents



Essex County Council

Related Policies and Strategies

- Essex County Council Developers' Guide to Infrastructure Contributions
- Essex Local Transport Plan (2011)
- Essex County Council's Sustainable Modes of Travel Strategy (SMoTS)
- Essex Design Guide – Garden Communities & School Design Guidance
- Essex Cycling Strategy (2016)
- Chief Medical Officers Physical Activity Guidelines Infographic (2019)
- Active Essex
- Draft Essex Walking Strategy (2019)
- Essex Joint Health and Wellbeing Strategy (2018-2022)
- Dept for Education 'Baseline Designs for Schools' (2014)
- DfT Cycling and Walking Plan (2020)
- DfT Cycling and Walking Strategy (2020)
- DfT Cycling Infrastructure Design (2020)

The Essex County Council Developers' Guide to Infrastructure Contributions

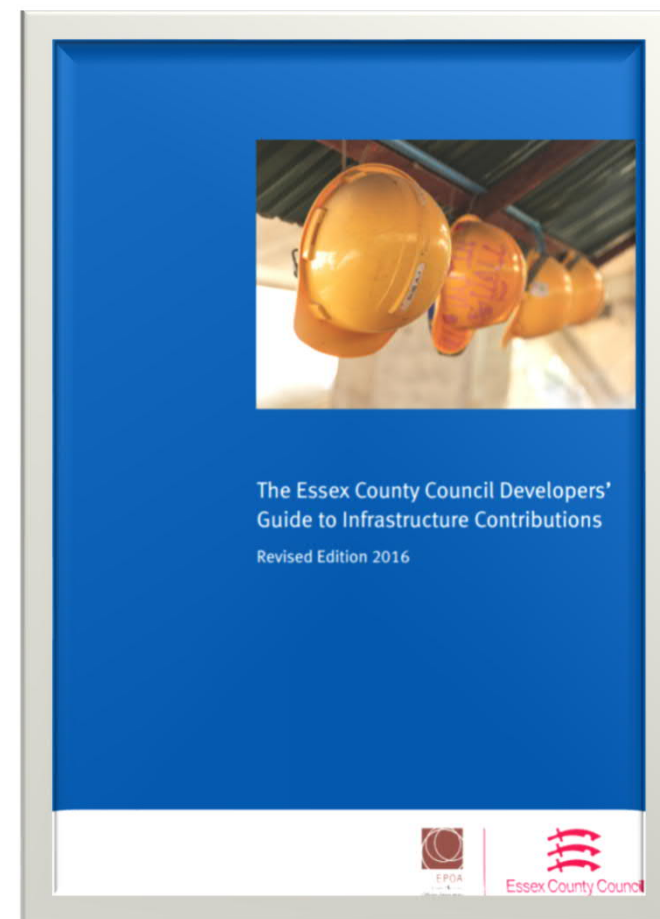
Working closely with the Local Planning Authority to identify locations that fit with the emerging development master-plan (if relevant) and provide the best position for improvements.

Any land that is intended for public use must be safe and fit for purpose.

Issues which will need to be examined include:

- ground conditions;
- sources of contamination;
- flood risks; and
- the proximity of incompatible land uses.

In the case of community use, the land will need to be central to the population it is intended to serve and well connected to walking and cycling routes.



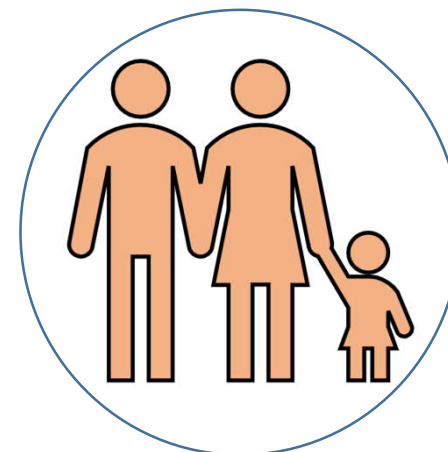
The Essex County Council Developers' Guide to Infrastructure Contributions

Objectives for building education and community facilities include:

1. Creating a sense of place
2. Avoiding congestion by dispersing school drop off
3. Providing a safe environment around school entrances
4. Encouraging sustainable travel

The immediate area around school entrances should, where possible, be traffic free to prevent attracting a disproportionate level of traffic that could cause inconvenience to other road users.

Pedestrianised areas function as a space for parents and younger siblings to congregate safely at the beginning and end of the school day and thereby encourage a sense of community. These spaces should be well connected to walking and cycling routes to make alternative modes of travel attractive.



Essex Local Transport Plan 2011

Essex Transport Strategy:

the Local Transport Plan for Essex

- The LTP will build on encouraging sustainable travel for daily trips to work and school, enable greater travel choices, and support initiatives to make car travel more sustainable.
- ECC continues to develop the urban cycling networks, walking routes and public rights of way, addressing gaps in routes and improving signing, in order to improve connectivity between residential and employment areas, schools and public transport interchanges.
- Schools in Essex may have a travel plan in place, which have led to significant rises in the numbers of students arriving on foot or bicycle, with subsequent reductions in car travel. ECC will continue to work closely with schools and colleges to promote low carbon choices, ensuring that travel plans remain active and are regularly monitored and that students are provided with the information, skills and facilities to use them.

June 2011

Essex Local Transport Plan – Sustainable Travel

The County Council will encourage the use of more sustainable forms of travel by:

- Consistently supporting and promoting sustainable travel;
- Providing infrastructure for sustainable transport;
- Working with partners and service providers to promote the use of sustainable forms of travel and to identify new ways to provide services;
- Requiring effective travel planning for proposed developments in line with the Council's current development management policies;
- Developing effective travel plans with existing work places, schools, and other locations that attract a significant number of people; and
- Promoting access by sustainable forms of transport to the county's railway stations, ports and airports.

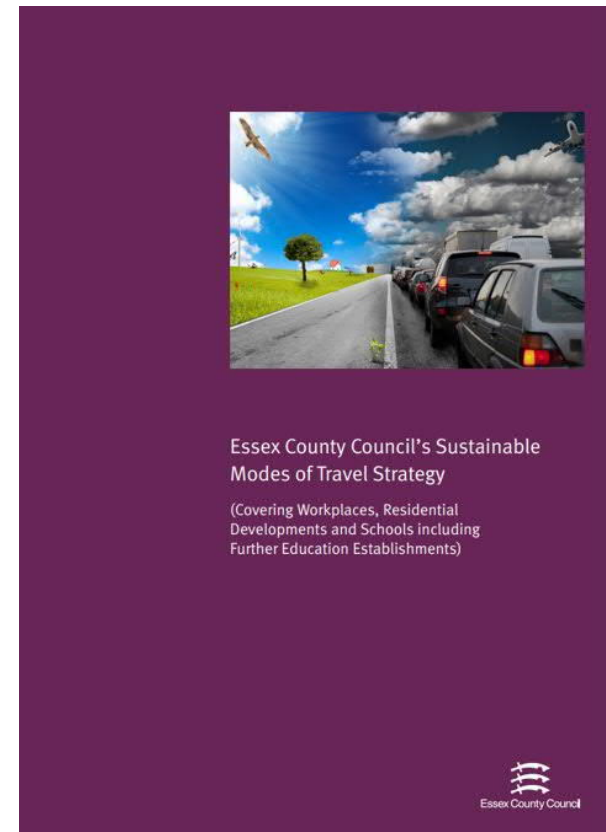
Essex Local Transport Plan – Increasing Cycling Levels

- ECC and partners will enable and promote increases in cycling in Essex for all types of trip. Measures undertaken will include:
- Completing missing links in existing cycle networks, providing better signing and improving cyclist facilities (for instance crossings and cycle priority measures) to provide continuous and safe routes, linking urban and surrounding areas;
- Improving cycle facilities (for instance secure cycle parking) at key cyclist destinations;
- Providing people with information on cycle routes in Essex, together with detail on where they can securely park their bike;
- Ensuring cycle access is provided to new developments, with links to the surrounding community and existing cycle networks;
- Promoting cycling, for instance through publicity material, educational programmes and cycling events; and
- Providing cycle training opportunities for school children and adults to provide people with the confidence to travel safely by bike.

Essex County Council's Sustainable Modes of Travel Strategy

This Strategy outlines their key objectives as:

- Allow and enable residents to make an informed choice about how they travel for work, school and leisure
- To help shape future planned growth and development in Local Plans with a range of sustainable travel choices for the movement of goods or people
- Help to improve the health, welfare and safety of all Essex residents by inspiring an active lifestyle
- Better management of congestion during peak travel times
- Promote and support development and enablement of travel alternatives used to access employment, health and education
- To consolidate and build on existing Travel Plans
- Contribute to meeting the County Council's performance indicator targets that relate to the delivery of transport services



Essex Design Guide – Garden Communities

- The Garden Town ambition is to create strong, healthy and new communities set within a sustainable economy.
- Infrastructure should be put in place to assist and encourage sustainable consumption and generation from the outset, to avoid the necessity to retrofit later.
- Sustainable infrastructure is about promoting resource and energy efficiency and providing access to basic services, green space, jobs and a better quality of life for all.



Garden Communities – Key Principles for Transport and Active Travel

- Timely delivery of sustainable transport alongside new homes and employment spaces
- Organising garden communities so that homes, jobs and facilities support sustainable travel and make public transport viable
- Inclusive, affordable and sustainable access to education, skills, jobs, shopping, healthcare, community facilities and transport hubs in each new garden community
- Walk/cycle routes make best use of current and future green infrastructure
- Minimising carbon emissions and pollutants by supporting installation of electric charging points, cycle parking and bike-share schemes
- Ensuring modern, frequent and reliable public transport access and dedicated routes to surrounding major towns and cities, as an attractive and sustainable alternative to car travel.
- Supporting the function and effective operation of local and strategic transport networks – roads, public transport and rail.
- Spaces should be multi-functional and flexible to accommodate a range of activities.

Essex Design Guide – School Design Guidance

This guidance seeks to ensure the appropriate design of buildings to address the development context and environmental constraints of a site while encouraging health and wellbeing principles are applied to the development including features to support sustainable accessibility across all user groups.

Key messages:

- Schools should be designed to prioritise pupil safety in a well-designed and appealing learning environment.
- Active design principles should be imbedded within the school building and around the site including play, social and entrance space.
- New schools should prioritise sustainable travel with a focus on road safety, parking/drop off zones for parents, infrastructure such as scooter/cycle parking.
- School sites should be designed to maximise opportunities for environmental sustainability.
- Schools should explore opportunities for wider communities use, engagement and interactions to maximise the site and facilities.

Guidance for School Entrance Design

The guide describes that:

- The entrance should be where it is safest for children.
- New school layouts should aim to have a pedestrian realm which links with footways/cycleway rather than a conventional car dominated street.
- The entrances and approach to the building should be legible from the public realm.
- If located at the front, the building should provide a high quality civic presence, address the street and create an active frontage. It should also create a building that users and the community can be proud of.

Physical activity for children and young people (5–18 Years)



BUILDS
CONFIDENCE &
SOCIAL SKILLS



DEVELOPS
CO-ORDINATION



IMPROVES
CONCENTRATION
& LEARNING



STRENGTHENS
MUSCLES
& BONES



IMPROVES
HEALTH
& FITNESS



MAINTAINS
HEALTHY
WEIGHT



IMPROVES
SLEEP



MAKES
YOU FEEL
GOOD

Be physically active

Spread activity
throughout
the day

Aim for an
average of at least

60

minutes per day
across week

All activities
should make you
breathe faster
& feel warmer



PLAY



RUN/WALK



BIKE



ACTIVE TRAVEL



SWIM



SKATE



SPORT



PE



SKIP



CLIMB

Activities to
develop
movement
skills, and
muscle and
bone strength
**ACROSS
WEEK**



WORKOUT



DANCE

Get strong



INACTIVITY

Move more

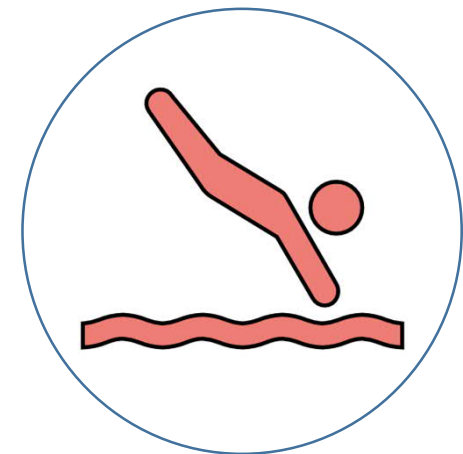
Find ways to help all children and young people accumulate an average of at least 60 minutes physical activity per day across the week

UK Chief Medical Officers' Physical Activity Guidelines, 2019

Active Essex



- Active Essex is the Sport and Physical Activity Partnership for Greater Essex.
- The partnership operates five hubs across 12 district local authorities and 2 unitary local authorities.
- The focus of Active Essex is tackling high levels of physical inactivity, particularly in the most disadvantaged areas of Essex.
- The website for Active Essex provides a vast amount of knowledge sharing tools, and activity opportunities to all ages and abilities.
- The Essex Local Delivery Pilot is an initiative by Active Essex, to build healthier and more active communities across Essex.
- Active Essex can be found at the following URL:
<https://www.activeessex.org/>



Essex Cycling Strategy

- This strategy sets out the key elements of a long-term plan to increase cycling in Essex, establishing it in the public's mind as a 'normal' mode of travel, especially for short a-to-b trips, and as a major participation activity and sport for all ages.

ECC aim to:

- Double the number of cycling stages (trips) in Essex from 2014 levels by 2025 at our monitored counter sites and other key routes.
- Cultivate a mind-set that sees cycling as a normal, enjoyable and everyday activity for the majority of short journeys.
- Establish cycling as an enjoyable participation activity for health gain and a popular competitive sport.

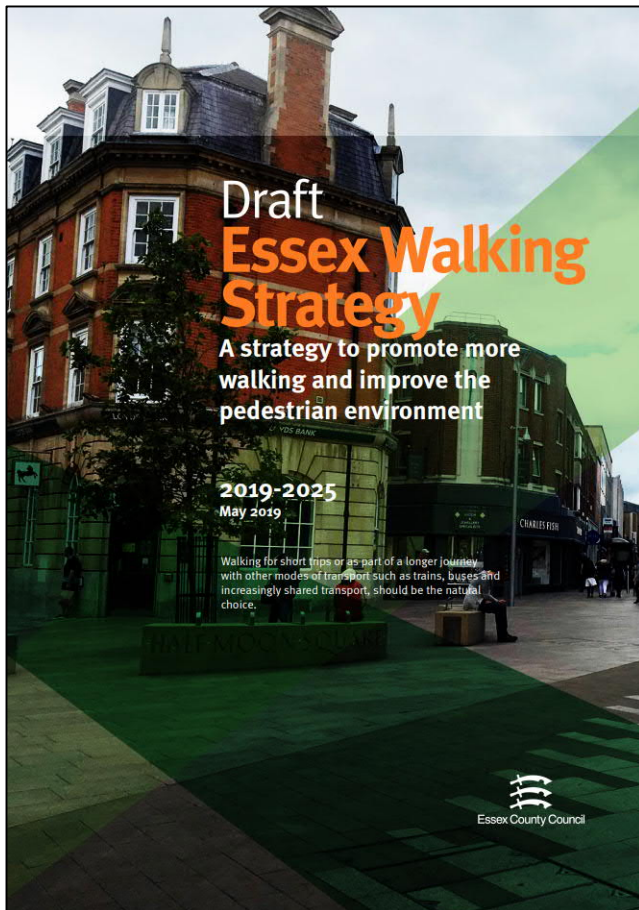


Essex Cycling Strategy – Commitments

ECC are committed to:

- Establishing a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities.
- Ensuring each District has an up to date Cycling Action Plan.
- Providing well placed and high quality cycle parking at key public destinations such as town centres, leisure facilities and railway stations.
- Ensuring that all new housing includes secure and easily accessible cycle storage and that secure cycle storage is facilitated in existing developments.
- Ensuring that cycling is prioritised over motorised transport in all new developments - making it easier to carry out short trips by bicycle than by car. Prioritising more frequent and good maintenance of our cycle network.
- Providing a clear and consistent standard of good quality, well placed signage - to a suitable density, with provision of journey times as well as distances (to cater for all) where possible.
- Developing an improved mechanism for the reporting of safety issues.
- Continuing to improve cycle safety at sites with actual and perceived safety problems.

Draft Essex Walking Strategy

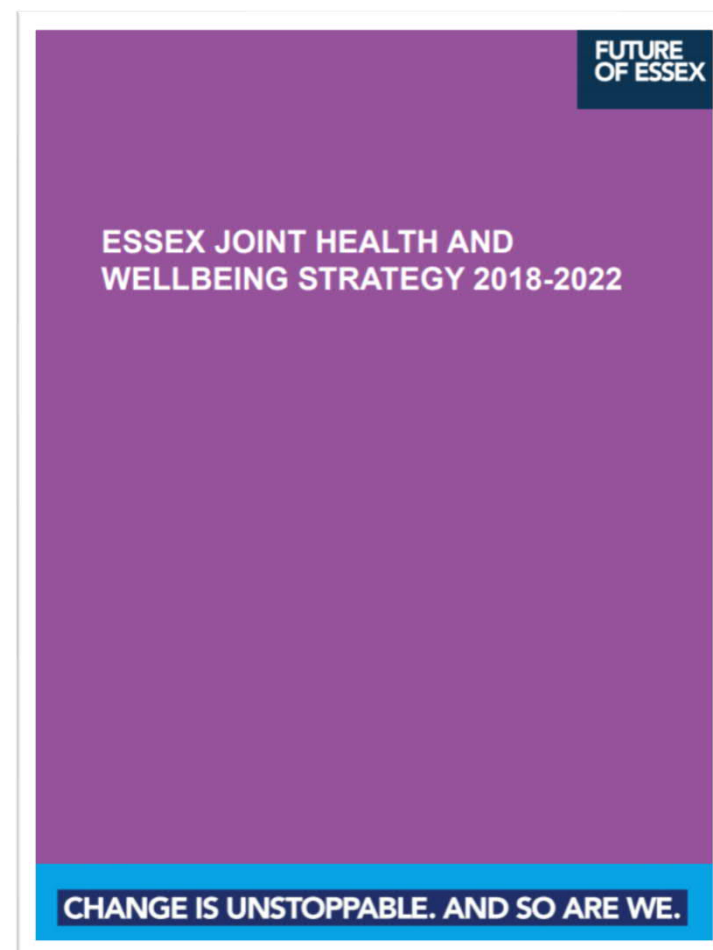


- This purpose of this strategy is to set out the key barriers, challenges and opportunities to increase levels of walking.
- Objective 5 - Enabling more Walking to Schools
- **Three Parking Rules** (3PR, Care, Consideration and Caution)
- **Park and Stride** - If a suitable location can be found for parents / guardians to park away from the school, this can enable children to walk the remainder of the way. There can be a 'pick up' and 'drop off' point and sometimes there can be stops along the way to/from school.
- **Community Led Street Design** - For the community to explore and recommend possible strategies and ideas for increasing the use of more active travel modes.

Essex Joint Health and Wellbeing Strategy (2018-2022)

This strategy sets out the vision for health and wellbeing in Essex. It sets out the Essex strategic priorities:

- Improving mental health and wellbeing
- Addressing obesity, improving diet and increasing physical activity
- Influencing conditions and behaviours linked to health inequalities
- Enabling and supporting people with long-term conditions and disabilities



Dept for Education ‘Baseline Designs for Schools’ (2014)

The design of a secondary school should provide:

- Opportunity for pupils to learn through contacts both within the school and from the wider community;
- A pleasant and motivating environment indoor and outdoor for both pupils and staff;
- Efficient use of accommodation and resources; and
- Flexibility for possible future development.

A width of 3.7 m is usually for fire fighting vehicles, and is considered adequate for one-way traffic, with 5.5 m considered for two-way traffic.

Entrances, driveways and turning spaces should be suitable for large / long vehicles such as mobile dental clinics, fuel tankers, goods and refuse vehicles, grounds maintenance machinery and, as necessary, school buses.

Safe pedestrian access should be provided, separate from vehicular access.

Access for disabled persons should be possible from a convenient vehicle setting-down point with a dropped/ramped footpath kerb and a ramp at main entrances to the building(s) as necessary.

Dept for Education ‘Baseline Designs for Schools’ (2014)

Careful consideration should be given to the location of exits and entrances to the site. These together with circulation within the site (driveways, parking areas and delivery areas for service vehicles) should be designed so as to avoid risks to pupils, staff and the general public.

Where a choice of location is available, the entrance should preferably be from a quiet road. All entrances should:

- be carefully sited with regard to traffic hazards;
- be clearly visible to vehicular traffic; and
- be provided with barriers or other means of controlling pupils as considered necessary.

DfT Cycling and Walking Plan (2020)

The plan aims to build on the significant increase in the number of people cycling during the Covid-19 pandemic. It sets out the actions required, grouped under four themes:

- better streets for cycling and people
- cycling and walking at the heart of decision-making
- empowering and encouraging local authorities
- enabling people to cycle and protecting them when they do

The plan commits to thousands of miles of new protected bike lanes, cycle training for any child or adult, and the first ever zero-emission transport city.

It sets out a comprehensive, long term vision to increase active travel and engage in the benefits of walking and cycling.

It also presents ambitions to increase the number of school streets, as a target to protect children on school journeys.



DfT Cycling and Walking Strategy (2020)

Aims and targets to be achieved by 2025

- Double cycling: where cycling activity is measured as the estimated total number of cycle stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025;
- Increase walking activity: where walking activity is measured as the total number of walking stages per person per year, to 300 stages per person per year in 2025;
- Increase the percentage of children that usually walk to school from 49% to 55% of children aged 5 to 10 in 2014 in 2025.

The Strategy links with numerous other strategy and policies:

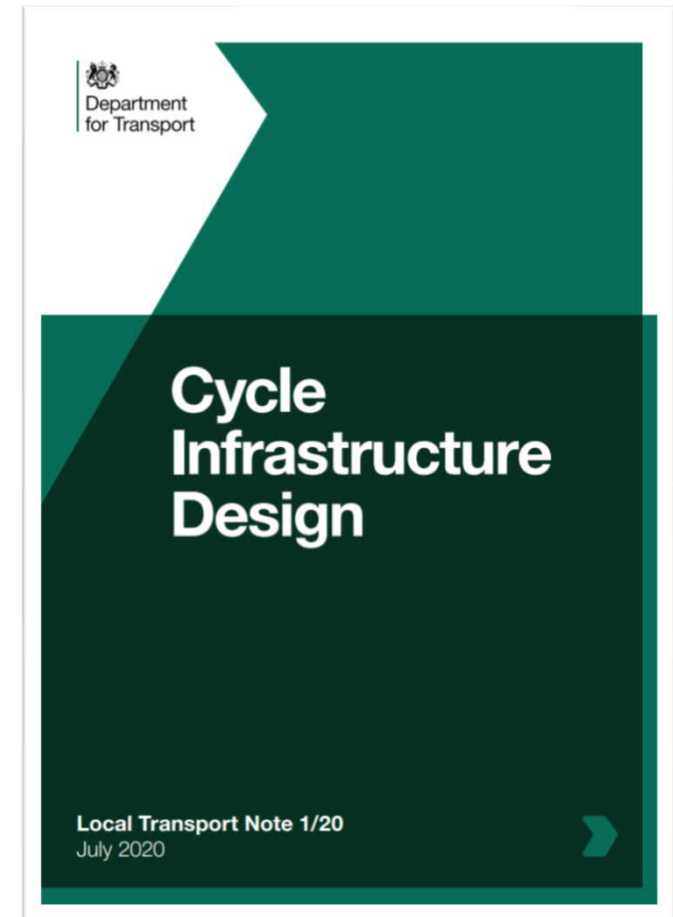
- Clean Growth Strategy
- Future of Mobility: Urban Strategy
- Sport England Strategy: Towards an Active Nation
- Clean Air Strategy
- Prevention is Better than Cure Approach
- Childhood Obesity Plan Chapter 1 & 2

DfT Cycle Infrastructure Design (2020)

This Local Transport Note provides guidance and good practice for the design of cycle infrastructure, in support of the Cycling and Walking Investment Strategy.

This note provides guidance to local authorities on delivering high quality, cycle infrastructure including:

- Planning for cycling
- Space for cycling within highways
- Transitions between carriageways, cycle lanes and cycle tracks
- Junctions and crossings
- Cycle parking and other equipment
- Planning and designing for commercial cycling
- Traffic signs and road markings
- Construction and maintenance



Annex B: Examples of Good Practice



Essex County Council

Summary of Best Practice

School Streets Programmes

- Transforming streets near schools by removing motor vehicles so that only pedestrians and cyclists can gain access during school hours (or at start and finish times)

Low-Traffic Neighbourhoods

- Street designs to reduce traffic, including home zones, traffic cells and car-free areas

Cycle Network Planning

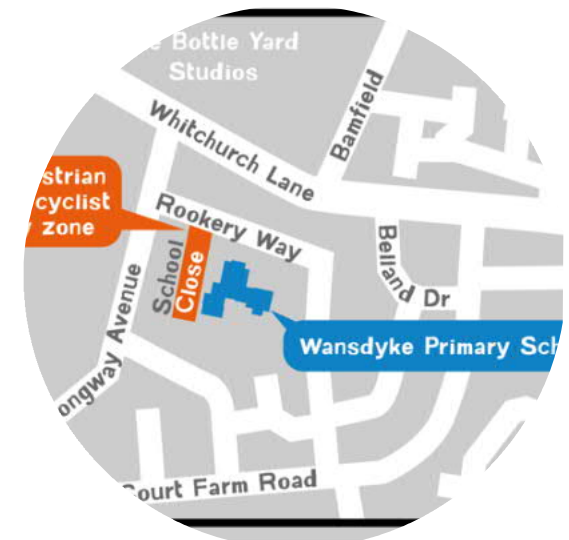
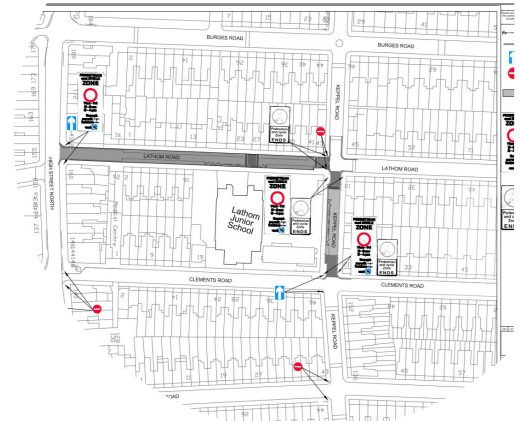
- Enhancements made to cycle networks and routes, making cycling more welcoming for new cyclists

School Design Examples

- Schools that have been designed to encourage sustainable travel and access

Airport 'Kiss and Fly'

- Designed to reduce traffic at the airport's departures and arrivals, Kiss & Fly are parking areas specially reserved for quick stop drop-off's.



Living Streets – How to get more children walking to school / A best practice guide

Living Streets works with councils to improve crossings, signs, footways, traffic speeds and road layout. Improvements include:

- Resurfacing a wet, slippery and badly-lit footpath to school with 'Starpath'. This luminous, high quality path provides safer access for pupils.
- Installing a wider pedestrian gate so more pupils can cross the busy driveway and enter the school quickly.
- Waiting shelters for parents / guardians built or improved.

However the guide provides no definitive guidance on what they think every school should incorporate for sustainable travel.



School Streets

- School Streets has been introduced by local authorities across the UK. The scheme transforms roads directly outside of schools, removing motor vehicles so that only pedestrians and cyclists can gain access at school start and finish times.
- The street(s) around a school temporarily become a 'School Street zone' for pedestrians and cyclists during short periods at the beginning and end of the school day. Vehicles are not allowed to enter the street between these times unless they have been granted an exemption.
- Exemptions will be granted to residents and businesses living or working within the zone so they can still move freely. Special exemptions will also be granted to blue badge holders.
- There will be clear signage to inform drivers that they are entering a School Streets zone. The zone will be enforced and motor vehicles entering the zone without an exemption permit could be issued with a fine.



Sustrans School Streets Kit

- Can be used to trial build-outs, road closures, parking removal, wider kerbs, etc
- Based around hollow, flexible, lightweight, linked plastic barriers
- Easy to transport, but can be filled with water



- Allows many different proposals to be trialed and demonstrated
- May help to overcome initial hesitation within the local community – experiment as part of public engagement!
- Quick to implement, bypassing detailed design, modelling and permanent traffic orders

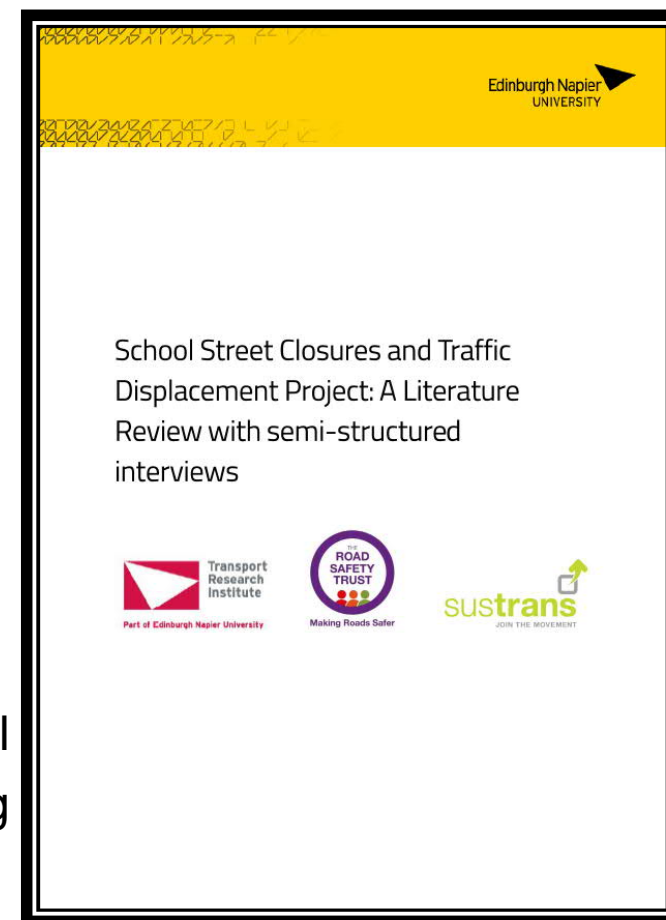


Review of School Street Closures and Traffic Displacement Projects

The report sets out the findings of a review of the existing literature on the impact of school street closures designed to create safer spaces for walking, cycling or street play.

Some of the main findings include:

- Strong evidence that reported road casualties were not a motivator of the closure schemes
- Strong evidence that local perceptions of danger and safety risk were the key motivators
- Strong evidence that the key purpose or one of the key purposes of the schemes was to increase the number of children travelling actively to school
- Medium strength evidence that alternative parking schemes such as “Park and Stride” help reduce traffic displacement although a small number of badly parked vehicles can remain an issue



Healthy Streets Check for Designers

- Transport for London (TfL) has published the detailed method of checking the performance of a street for designers.
- This tool is a spreadsheet of 31 metrics that can be precisely measured for any street.
- The output is a Healthy Streets score that indicates how that street's engineering layout and management of traffic performs against the 10 Healthy Streets Indicators.
- It can be used to assess an existing street or a plan for a new layout.



Home Zone Example – Netherlands



- Street foliage
- Dedicated parking spaces
- Speed control bumps
- Shared street space
- Distinct difference in road and footway height / design

- Street foliage
- No street parking
- Car access
- Similar road and footway height / design



Home Zones are residential areas that encourage active travel and play without excluding car traffic.

Home Zone Example, Morice Town, Plymouth

Morice Town is an area within the City of Plymouth that was selected as one of nine pilot sites for the UK Home Zones program in 1999.

The town was designed and implemented with significant community input over a three-year period, consisting of 12 streets on a grid pattern.

The single most important objective was to create an area where residents felt safe.

This included tackling the problem of traffic and speed, implementing speed limits of 5 mph, and introducing “friendly” features, such as designated parking spaces and attractive street furniture.



This image shows shared, level carriageways, narrow streets and multi-coloured paving with planters and other objects to create a safe environment for pedestrians.

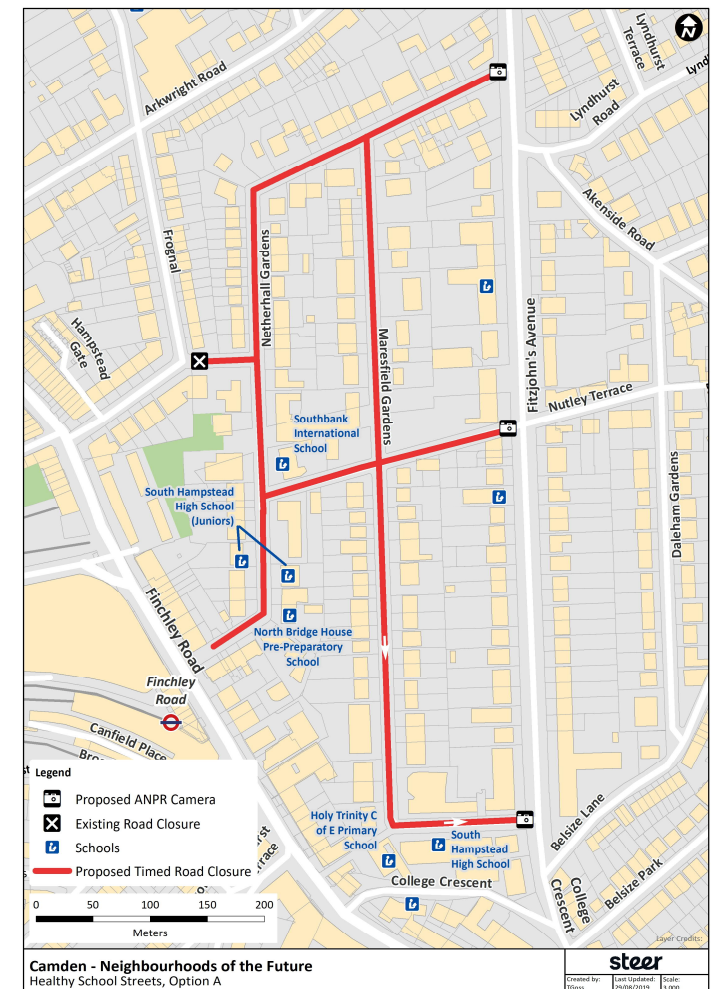
Sustainable Urban District Vauban, Freiburg Germany

- Car-free and parking-free pedestrian landscapes.
- Pedestrian and bicycle paths form an efficient, green transportation network with every home within walking distance of a tram stop, and all schools, businesses, and shopping centres located within walking distance.
- The city has over 400km of cycle paths, separate bike paths, and over 9,000 bicycle parking spaces, including "bike and ride" lots at transit hubs. **70% of the inhabitants live without a car in Vauban.**
- Main road speed limit is 30kmh, and cars driving in residential areas cannot travel faster than typical walking speed (5kmh).



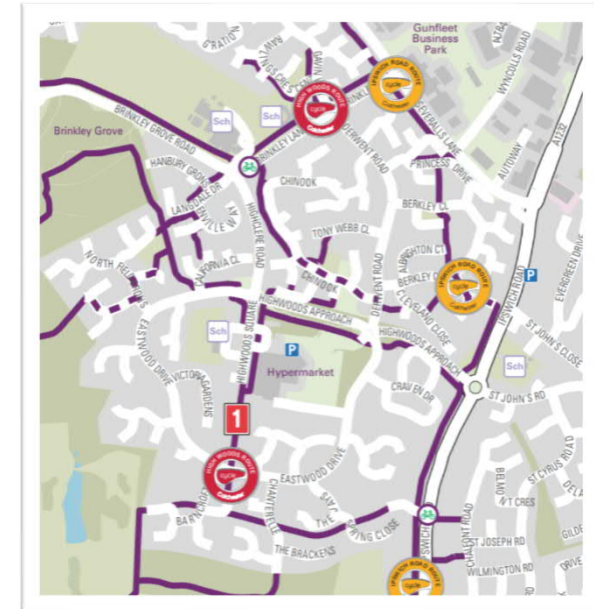
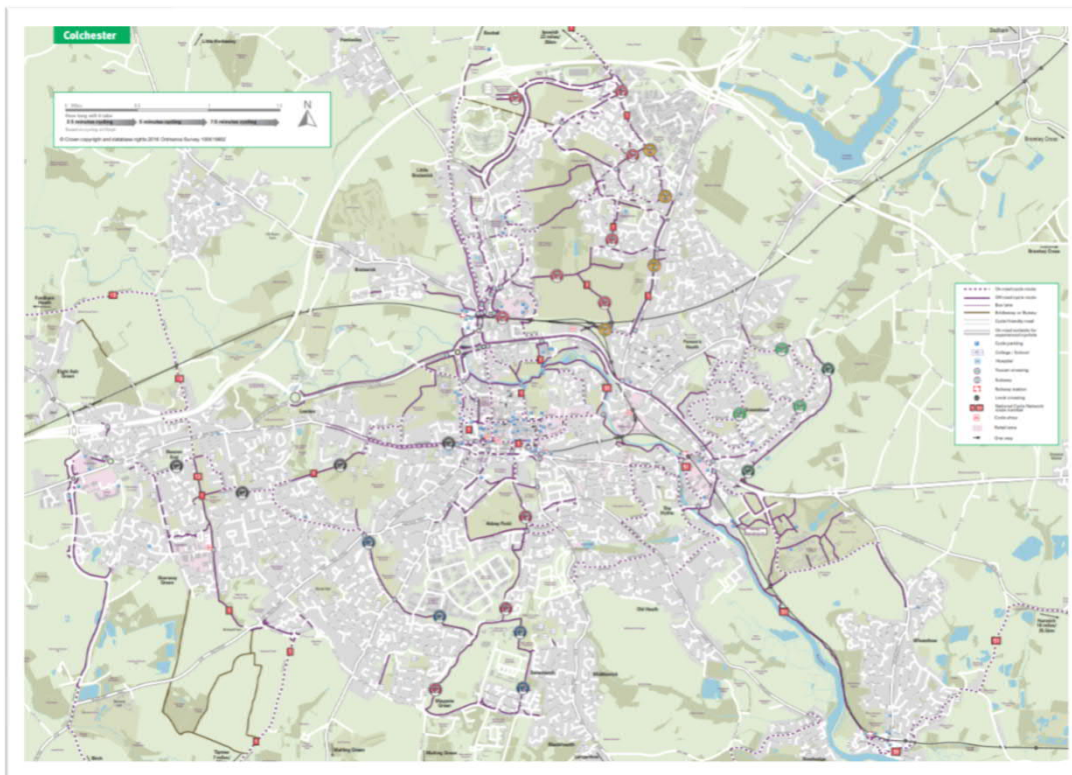
Camden Low-traffic neighbourhoods and School Street restrictions

- This proposal creates a zone of timed road closures surrounding this neighbourhood containing five schools
- Streets coloured red will be restricted during school times to all non-exempt vehicles
- Restrictions enforced through the use of ANPR cameras in these locations
- Vehicles that are not exempt will receive a Penalty Charge Notice for entering the zone during the restricted times
- Exemption can include local residents, or other criteria
- Traffic cell prevents cars travelling from one cell to another – must use major roads instead
- Like the Waltham Forest example featured earlier, traffic cells can support school streets by reducing through-traffic



Cycle Colchester – Essex

Cycle Colchester brings together numerous local and borough-wide groups to identify and deliver real improvements for cyclists and raise the profile of cycling in the town.



- 4 schools in the above neighbourhood
- Each can be accessed by off-road cycling routes
- These routes are clearly signposted and easy to follow

Social Cycling

- Wide two-way cycle lanes
- Space for side-by-side cycling



[Dutch photo with negative reversed to show left-side cycling]

Simple modal filters, such as this one in Hackney, help form cycle-friendly neighbourhoods

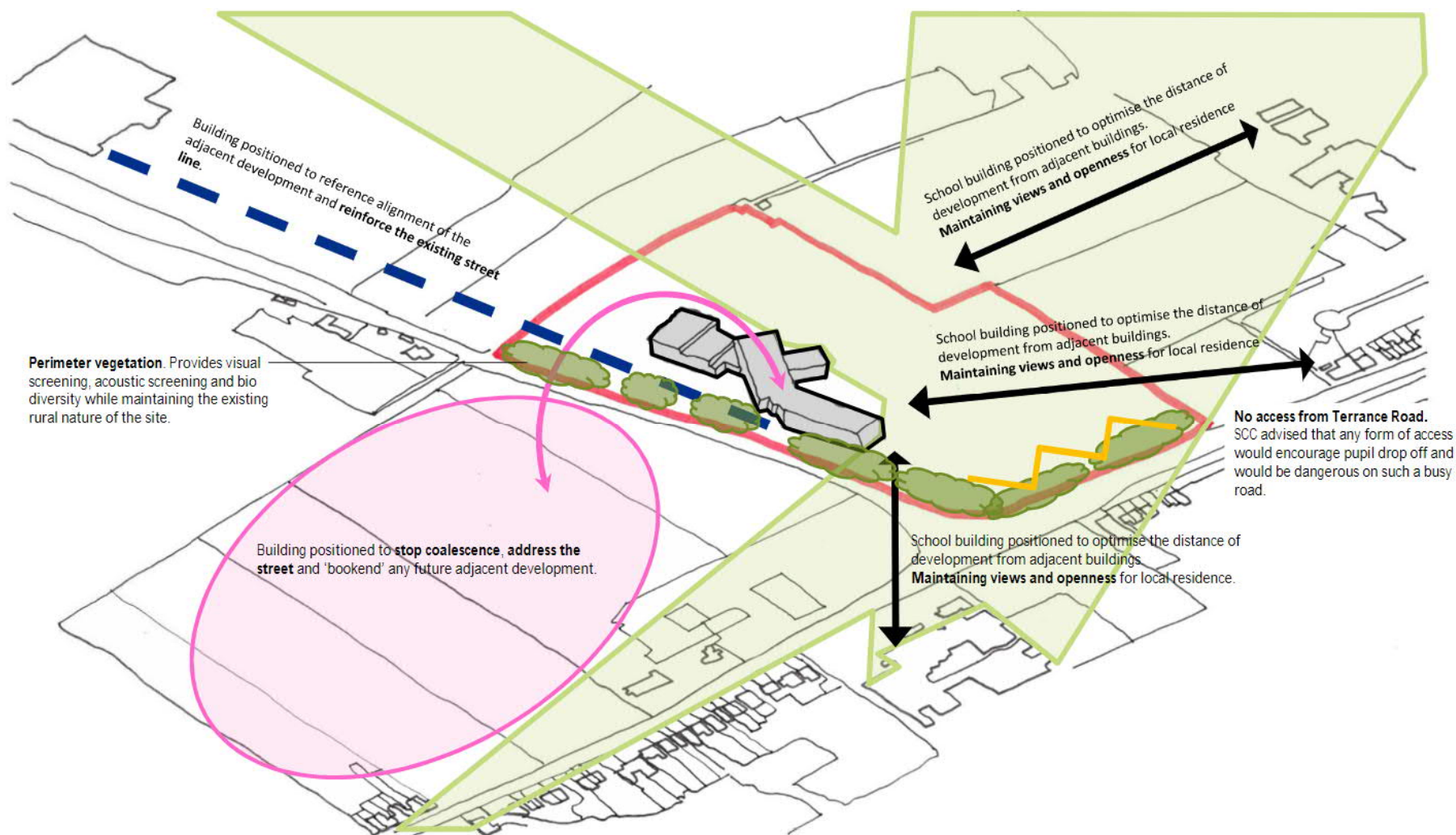


Whoopdeedoo Vancouver Cycling Project

- 'Interesting' cycle features implemented for 'Bike to Work Week'.
- Introduces subtle sloping ramps on pre-existing bike paths.
- Ramp designs are bright and friendly to catch the attention of cyclists and pedestrians.
- The ramps are also accompanied by posters and safety signage stating: "Have fun at your own risk."



Heathside Walton on Thames Academy Report Design Concept



Coombe Wood Secondary School Design and Access Statement



Shared Pedestrian and Cycle Access

Localised widening of the road to accommodate access

Segregated entry and exit movements manage turning movements, which assists in highway safety

Long frontage provides good segregation between the pedestrian access and vehicle access

Airport 'Kiss and Fly'

- Guidance exists for length of drop-off zones for different settings
- UK best practice is now to charge for airport drop-off to reduce demand
- Enhanced drop-off facilities could marginally improve capacity and/or safety, but would worsen air pollution and contradict encouragement of walking and cycling to school



MSE News

[MoneySavingExpert.com](#) » [News](#) » 2018 » July

» Airports now charge up to £4.50 for a 10-min drop-off - how to avoid 'kiss and fly' fees

Airports now charge up to £4.50 for a 10-min drop-off - how to avoid 'kiss and fly' fees



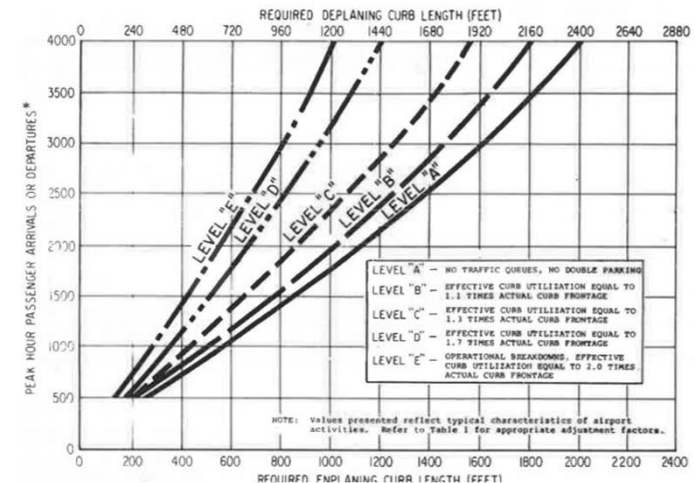
Jenny Keefe, Lead Writer
17 July 2018



More than half of the UK's major airports now charge you if you spend 10 minutes dropping off a loved one outside the terminal building, MoneySavingExpert.com can reveal – and some add as much as £1/minute if you take any longer.

Update April 2019: The below information is from our 2018 investigation so double-check if any prices, or drop-off rules have changed before heading to the airport.

Our investigation found 19 of the UK's 30 busiest airports – including Manchester, Stansted, Luton and Edinburgh – make you pay for a 10-minute drop-off, with fees ranging from £1 to £4.50.



Suggested method for estimating kerb frontage needs.



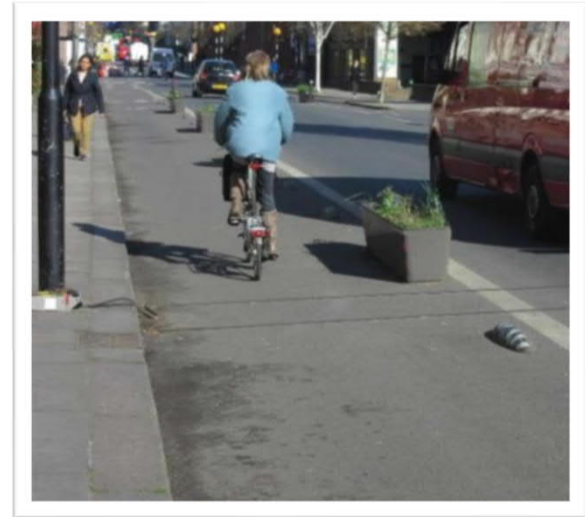
Annex C: Practical Design Advice



Essex County Council

Space for Cyclists on Highways

- The minimum recommended separation between carriageway and cycle tracks on 30mph roads is 0.5m.
- Lanes wider than around 3m are not necessary in most urban areas carrying mixed traffic.
- Space may be taken from motor vehicles by reducing the carriageway's width and/or number of lanes.
- Narrower lanes may be appropriate, particularly in built up areas, resulting in roads that are easier for pedestrians to cross and encourage low traffic speed.
- Cycle tracks within the highway may be:
 - Fully kerbed cycle tracks, protected from motor traffic by a full-height kerb, preferably with some buffer space between the cycle track and carriageway; and
 - Stepped cycle tracks set below footway level, typically protected from the carriageway by a lower height kerb and usually directly next to it.
- Light segregation can be used as a temporary feature to quickly and cost effectively create a protected space for cycling on highways. This may help to prove the case for a more permanent solution such as a fully-kerbed or a stepped cycle track.



Light Segregation using planters and low level features in Camden

Cycling in Home Zones

- These areas create low speed environments which enable cycling without the need for specific measures.
- Such streets are mainly used by local residents, their visitors and deliveries and servicing traffic. There would be no need to provide geometry that accommodates higher vehicle speed.
- Streets can be made attractive with hard and soft landscaping that reinforces the traffic-calming effect.
- Home Zones can be formally designated and signed as prescribed in the Home Zones and Quiet Lanes (England) Regulations 2006, although the principles can be more widely applied on other residential streets, as described in the Manual for Streets.
- **Quiet Lanes** were introduced at the same time as Home Zones, and may be appropriate on rural lanes where actual speeds are under 40mph, and motor traffic volumes are less than 1,000 per day.
- The intention is to indicate to road users that the whole surface of a lane is likely to be used by pedestrians, equestrians and cyclists as well as motorised traffic.

Shared use routes

- Shared use facilities are generally not favoured by either pedestrians or cyclists, particularly when flows are high. Issuing particular difficulties for visually impaired people.
- Where space and budget allows, the most effective way to minimise conflict and increase comfort is to provide separate routes for walking and cycling.
- Distinct tracks for cyclists should be made, using sloping, pedestrian-friendly kerbs and/or different surfacing.
- Shared use routes away from streets may be appropriate in locations such as paths through housing estates, parks and other green spaces. Where cycle routes use such paths in built-up areas, it should be attempted to separate them from pedestrians, with levels or kerbs.
- Where there is insufficient space to separate the pedestrian and cycle paths, a level difference (preferably 60mm or more) and/or different surface texture should be used to clearly indicate separate surfaces intended for either cycle or pedestrian use.
- **The preferred approach for shared use routes is to provide sufficient space so that cyclists can comfortably overtake groups of pedestrians and slower cyclists.**

Cycle Parking

Reference should be made to the relevant local guidance and any relevant travel plans to determine the appropriate level of provision of cycle parking. The following key principles should apply:

- Shared cycle parking facilities should be **secure, overlooked and convenient** to use with shelter provided wherever practical
- Appropriate provision should be made for **all potential users** including children and visitors
- Cycle parking can be provided in a number of ways such as **within garages, bespoke cycle storage, communal areas in flats and on-street cycle racks**
- Cycle stands need to be **located clear of pedestrian desire lines**, and generally closer to the carriageway than to buildings
- Cycle parking should be provided at **bus and train stations** to assist transition between transport modes
- Spacing and positioning of cycle racks in such a way to be **detected by blind or partially sighted**

Cycle parking should be set out along all cycle routes and at all key destinations

Cycle Parking – Stands

- Space for cycle parking should be considered at the earliest possible stage of a scheme design or building development.
- The availability of secure cycle parking at home, the end of a trip or at an interchange point has a significant influence on cycle use.
- The fear or direct experience of vandalism and theft deters cycling. This includes lack of convenient space to keep a bike in the home and for disabled cyclists who would need easy access to their bicycle.
- Cycle stands require at least 0.6m clearance to walls, and a clear space of 1.0m in front to enable the bicycle to be wheeled into position.
- A distance of at least 1.0m between stands enables bicycles fitted with panniers or child seats to gain access. Other types of cycle are longer and wider and will require additional space.
- Two types of cycling storage infrastructure includes:
 - Sheffield stand – The preferred and most common form of cycle parking is a tubular metal stand anchored into the ground at two points, for options to secure both ends of the bicycle.
 - Front wheel support stands – Concrete ‘slots’ or metal hoops that support only the front wheel and do not enable the frame to be secured. Not advised for public bicycle parking.

Parking for Cars and Bicycles within Schools

- Cycle parking should provide well-located, safe and secure cycle parking as a key factor in encouraging people to cycle as a private car alternative.
- All cycle parking must:
 - be secure and covered;
 - be conveniently located adjacent to entrances to buildings;
 - enjoy good natural observation;
 - be easily accessible from roads and/or cycle routes;
 - be well lit; and
 - be located so it does not obstruct pedestrian and cycle routes.
- Preferred bay size for cars 5.5m x 2.9m & minimum bay size 5.0m x 2.5m
- The minimum bay size should only be used in exceptional circumstances, subject to the Local Planning Authority.
- Any smaller than the above minimum bay size and an occupant might be unable to get in or out of an average sized family car with cars parked adjacent.
- The location and overall design should encourage maximum use of the parking areas in order to minimise the risk of on-street parking.
- Talk to the school community about reducing parking provision in exchange for more play space

Traffic and Parking Management

Design should be used to influence driver behaviour to reduce vehicle speeds appropriate for the local context and to deliver safe streets for all.

- **Traffic cells / modal filters / low traffic neighbourhoods** to remove all non-essential traffic from streets near the school
- **Time-specific restrictions** can restrict all traffic during drop-off / pick-up times
- **Street dimensions** can have an influence on speeds (short street lengths)
- **Reductions in forward visibility** can reduce driving speeds (ensure crossing points are visible)
- **Changes in priority** at junctions (disrupting flow and bringing speeds down)
- **Physical features** involving vertical or horizontal deflection are effective in reducing speed
- **Materials and physical features** reduce speed by visual perception such as cobbled surfaces, road humps or pinch-points
- **20 mph zones / speed limits and Traffic Regulation Orders** on streets
- **Separate school traffic entrance for teachers / deliveries** can redirect traffic from walking and cycling routes
- **Parking controls** should help to prevent parents dropping off pupils

