# Making Streets Better:
# Clutter Buster


CITY INFINITY

**Designing for sustainable urban travel**

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References to legislation discussed within this document are not exhaustive and the reader should be consider them in light of current and future legislation which may be published after the date of this document.

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*Cover Photograph:*
Clutter evolves over time.

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*Broadway, Elm Park, London. Is this street inviting? It probably isn't too cluttered, but are people placed first?*

*Francis Road, Walthamstow, London. There's possibly more clutter than the example above, but perhaps the street is more inviting with people placed first.*

## Making Streets Better:
## Clutter Buster

Our streets are full of 'stuff'; some of it vital, some of it beautiful, much of it in the way. This cluttering hasn't come from deliberate acts of urban vandalism, just gradual and sometimes thoughtless additions to the streetscape. Quite a lot of the clutter has come from managing the moving and parking of motor vehicles.

If something needs to installed, it should do a job. Better than that, it should should do more than one job and work hard at it. In delivering a service to someone, these 'things' shouldn't reduce the level of service for someone else.

That's not to say that out streets should be clinical, clutter-free and boring facsimiles of each other; on the contrary, we should celebrate distinctiveness. However, in the final analysis, it doesn't take much to ruin a place with a carelessly thought out installation. In some instances, we will end up physically preventing some people accessing the street.

This guide gives you the essential background to street clutter, how it can be managed and how a small amount of effort can pay dividends in terms of accessibility, attractiveness, comfort and safety.

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# 1.0 Introduction

## 1.1 Overview

The discussion and interaction available in a face to face training environment cannot be replicated in print. However, this document complements City Infinity's training on how to deal with street clutter and provides background knowledge on how schemes can be designed and implemented with signposting to other sources for the reader to research.

*Fendon Road roundabout, Cambridge. Zebra crossings create their own regulatory clutter, but the designers have kept desire lines clear and used materials to create a legible layout.*

## 1.2 Document status

This is just guidance which is a world away from standards and indeed legislation. Some guidance has a relatively short shelf-life because ideas move so quickly, but the basic principles and techniques around dealing with street clutter are time-served and are easily applicable to many situations.

## 1.3 Areas covered

This document is broken down into a series of easy to digest sections as follows;

- The basics,
- Traffic signs,
- Parking and loading,
- Telecommunications and utilities,
- Motor vehicle charging,
- Security and counter-terrorism,
- Bus stops,
- Cycling,
- General issues,
- Temporary and experimental street changes,
- Clutter reduction.

The structure of this document goes through the causes of clutter in some detail with a round up in the last chapter on how clutter can be reduced.

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## 2.0 The Basics

### 2.1 Definitions

Where streets are concerned, there are a variety of terms used (often interchangeable) to describe certain features and so it's worth defining some. This guide will use the 'proper' terms throughout.

***Carriageway***

Generally the bit of a highway vehicles are used on (in the widest sense as people can walk and cycle on a carriageway to).

***Cycle track***

A facility for cycling in or by the side of a highway which has a made up carriageway. Can be in the carriageway, but separated (sometimes referred to as protected) from traffic, on a footway (legally "converted" to a cycle track in England & Wales/ redetermined in Scotland) shared with pedestrians or segregated from pedestrians, or "grade separated" where the footway is at the highest level, then there is a kerb down to the cycle track and another kerb down to the carriageway.

***Desire line***

This is where people want to go; the obvious route. If we can design for the desire line, people will be more likely to use what we're designing.

***Effective width***

This is the usable space of part of the street, regardless of the actual width. For example, a car parking bay will reduce the effective width of a carriageway. A tree in the footway will locally reduce the effective width of the footway.

***Footway***

A paved pedestrian facility provided in or by the side of a highway which has a made up carriageway.

***Parallel crossing***

A type of zebra crossing where people walking and people cycling cross the road together, but in separate space.

***Pavement***

From a highway engineer's point of view "pavement" refers to the structural aspect of a carriageway, footway, cycle track etc. People colloquially use pavement to mean "footway".

***Traffic***

Often a term meant to mean 'motor traffic', but in UK law, traffic also includes people walking and cycling. In this guide, traffic will be used in it's general sense, unless otherwise described.

***Signal head***

This is the housing on top of a traffic signal post which contains the individual traffic signals that users see.

***Street furniture***

A generic term for items placed in the street or public realm.

***Traffic order***

A legal document (which can be electronic and map-based) which sets out rules for parking, loading and traffic prohibitions or directions. Called a traffic management order in London and a traffic regulation order in the rest of England, Wales and Northern Ireland. In Scotland, they are often called road orders.

***Waiting restriction***

A term which basically describes single and double yellow lines or sometimes parking controls which just use signs rather than yellow lines. Essentially means that parking is prohibited.

## 2.2 What is clutter?

Clutter is in the eye of the beholder in many ways, but it perhaps can be defined as those features which do not add to the smooth operation of the street; features which prevent people moving smoothly along the street; or things which don't contribute to the distinctiveness of the street.

*The Traffic Light Tree, Docklands, London. Is it clutter or public art? Beauty is in the eye of the beholder (although we think it's great!)*

It's hard to decide if something is just plain ugly in the street because it is so subjective. While a statue may not add anything to the smooth operation of a street, it contributes to its distinctiveness (even if some people consider it ugly). However, a statue placed in a way which interrupts people walking along a footway is definitely clutter.

Traffic signs, bus shelters, seating, litter bins, trees, telecommunications cabinets and pedestrian guard rail are just a few things which are installed on our streets to do a job, but which might create clutter.

## 2.3 Managing motors

The vast majority of "things" placed in the street are for the management of motor traffic. Signs to regulate, warn and inform drivers are everywhere and as soon as we try and manage where people park, we end up with road markings and traffic signs.

The majority of traffic signals, bollards and guardrails are there to manage motor traffic or benefit its flow. If you think about it, cycle tracks, zebra crossings and even kerbs are motoring infrastructure.

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*Upminster town centre. A wide expanse of asphalt with pedestrians corralled by guardrail. This is all about moving motor vehicles.*

### 2.4 Managing people

It's no coincidence that where traffic volumes are very low or absent, then we don't need to add very much clutter to the street, other than perhaps some way finding signs or some cycle parking. People moving under their own steam don't need a huge amount of management.

*Winchester city centre – benches for sitting, street name plate on the buildings. There's no motor traffic and so no need for traffic signs.*

## 3.0 Traffic signs

### 3.1 Overview

Traffic signs (including road markings) are ubiquitous on our streets. In many cases, they are over designed and over used. A greater part of the problem is the complexity of the rules governing their use which can lead to over specification. They are also a staple of councillor requests as they are seen as a cheap way of showing something has been done.

Traffic signs are perhaps one of the most significant causes of street clutter and so this section looks at traffic signs and how their use and positioning can be kept to a minimum.


*Road markings and traffic signs are required to inform drivers that there is a bus gate, but this installation is not sensitive to its location.*

### 3.2 Traffic Sign Types

Traffic signs are generally provided to warn, inform and regulate. Warning signs and informatory signs are optional and sometimes useful, whereas regulatory signs are absolutely necessary for speed limits, parking controls and the management of moving traffic. Regulatory signs give effect to Traffic Regulation Orders (Traffic Management Orders in London).


*A 'no-entry' sign is a regulatory sign which gives effect to a traffic order. Here, cycle traffic is exempt from the traffic order.*

### 3.3 Legislation

The ability to install traffic signs, how they look and how they are used is controlled by legislation. The ability of a traffic authority to install traffic signs is provided under Part V of the Road Traffic Regulation Act 1984 (RTRA1984) [1] and the design of traffic signs and how they are used is set out in the Traffic Signs Regulations & General Directions 2016 (TSRGD16) [2].

### 3.4 Guidance

TSRGD16 is a complicated document and describing its use could take an entire guide in its own right. There is help at hand in the form of the Traffic Signs Manual [3] which breaks down the use of traffic signs into chapters;

- Chapter 1 – Introduction
- Chapter 2 – Determination of x height / primary route destinations in England
- Chapter 3 – Regulatory signs

- Chapter 4 – Warning signs
- Chapter 5 – Road markings
- Chapter 6 – Traffic control
- Chapter 7 – The design of traffic signs
- Chapter 8 – Road works & temporary situations

Chapter 6 is relatively new. It includes guidance on pedestrian and cycle traffic crossings and takes some advice from previous versions of Chapters 3 and 5. Chapter 2 isn't really a comprehensive document and doesn't feel part of the series. Chapter 8 is split into three volumes and deals with street works and temporary situations.

### 3.5 Design Principles

As with anything that can lead to clutter, it is worth asking the initial question as to whether or not a sign is needed. As explained earlier, regulatory signs are generally the only ones that have to be provided, but of course warning and informatory signs can be useful.

In terms of sign size, this will be determined by the speed limit of a road with larger signs being used where speed limits are higher so that drivers can see them and react in good time. In addition, there shouldn't be too much information on a sign read at speed because there is only so much information a person can take in.


*A large directional sign with similarly large letters so that they can be seen by drivers using the adjacent high speed road. Care has been taken with the design to keep support posts out of the footway and cycle track.*

Some signs are sized based on the text size and the information conveyed (such as a directional sign) and some have size options. So long as the signs can be seen, then it is always worth seeing if a smaller sign can be used while remaining within the rules for its class. Signs aimed at people walking and cycling should also be appropriately sized. A sign needing to be seen at a little distance would be larger than one in the immediate vicinity for example.


*A sign for walking and cycling sized and placed appropriately.*

Some signs have to be lit to ensure they can properly be seen (mainly regulatory), although for 20mph situations there are a range of relaxations. In many cases, signs have to be ‘retroreflective’ which is where motor vehicle headlights help illuminate the signs.


*The upper photograph was taken without a flash and the lower photograph was taken with a flash to show retroreflectivity.*

In terms of installation, the aim should be to avoid installing signs in walking or cycling space. Verges are useful places to install signs, otherwise we might use the rear of the footway. In some cases, a wide footway means that a sign will need to be installed near the kerb so it can be seen (usually by drivers). If there is a ‘clutter line’ (see Section 12.6), then this would be an appropriate place for installation.


*This large trunk road traffic sign has been installed in the verge with a cantilevered frame to avoid a second post placed into the footway.*

*On the reverse side, the sign face is attached to a steel framework.*

### 3.6 Parking and loading management

The management of on-street parking and loading is a significant cause of clutter which mainly ends up on the footway. In addition, parking controls and bays generate road markings and we also sometime have payment

machines associated with pay-and-display parking. The wider issues of parking and loading are covered in Section 4.0.

In terms of individual signs which indicate the times of restrictions or bay operation, attaching signs to buildings, railings and walls is an elegant solution, although effort is required to obtain permission from the owner. The signs need to be placed near the restriction or bay, so with wide footways, the sign may not be close enough to the carriageway to be reasonably seen.


*Parking bay sign attached to railings.*


*Waiting restriction (upper panel) and loading restriction (lower panel) attached to a building fronting the highway.*

Where the signs cannot be placed on buildings, walls or railings, then we are going to need to install posts. If possible, posts should be installed at the rear of the footway because placing them kerbside means setting them back from the road which reduces effective footway width.

If a lighting column is in the correct place for the sign, then they can also be used. However, because of wind loading issues, there will be a maximum sign size that can be installed without additional support.


*Lorry/ bus overnight parking ban sign attached to a lighting column.*

A zonal approach to parking management can be helpful. A controlled parking zone (CPZ) is signed using larger signs at the entry points and repeater signs at each parking bay. As long as the times are consistent with those of the bays, the waiting restrictions (yellow lines) in a CPZ will not require additional signs.

Similar to a CPZ with entry signs, a restricted parking zone (RPZ) is an option whereby the waiting restrictions are not marked with yellow lines. Instead repeater signs are used within the zone. An RPZ can be set up so that parking

(and/or loading) is only permitted in marked bays. This will need to be announced on the entry signs and a marked bay can include the use of bollards, contrasting paving and methods other than road markings. In other words, the parking can be managed through the design of the street. CPZs and RPZs also need to have ‘end of zone’ signs which are generally placed back to back with the entry signs.


*An entry sign to an RPZ. The circle means ‘no waiting’ and the sub plate excludes signed bays which could be for parking, loading, bus stops, taxi ranks and other bay types.*


*A repeater sign in an RPZ. The yellow sign replaces the need for waiting restrictions (double yellow lines in the case of ‘at any time’ controls) and the white sign replaces a loading ban (which would otherwise be pairs of yellow kerb blips).*

A permit parking area (PPA) is another clutter-busting way of dealing with parking. It works best in self-contained situations where there is one entrance/ exit point. The entry sign states that only permit holders are permitted beyond and the restriction is reinforced within the area using repeater signs. Waiting restrictions can still be placed within a PPA, but if they are time-limited, then they will need to be signed as well.


*Entry to a parking permit area.*


*Repeater sign within a parking permit area.*

### 3.7 Regulatory

Parking-related signage is regulatory, but there are also other types of regulatory signs which manage the flow (or not) of different classes of traffic. Many regulatory signs are round and either carry black legends on a white background with a red edge (mainly prohibitions) or white legends on a blue background (instructions or limited classes of traffic). Sometimes regulatory signs will have a sub plate to give additional information.


*Regulatory turn left sign, the sub plate explains that drivers are entering a dual carriageway.*

Regulatory signs are often provided to give effect to a traffic order such as width restrictions, speed limits, one-way systems, restricted access for classes of vehicle and weight limits; whereas others don't have traffic orders such as give way signs and keep left/ right arrows.

Where giving effect to a traffic order, regulatory signage is required, but the guidance set out in the Traffic Signs Manual does allow for minimum installations, although care is needed to make sure that installations are legible. In 20mph situations, many regulatory signs do not need to be illuminated.


*Speed limit signs are regulatory signs. 20mph Zones apply on an area basis.*

In the UK, there are "restricted roads" which have a speed limit of 30mph where accompanied by street lighting. Where a road is lit and has a different speed limit (20mph or

40mph and greater), then repeater signs are used. 20mph Zones contain various speed reducing features which can include repeater signs, but they are not necessarily required.


*30mph "terminal" sign with the post at the rear of the footway to maximise footway width using a bracket system to "hang" it further towards drivers' field of view.*

For roads which are unlit, the default speed limits is the "national speed limit" which is 60mph on single carriageways and 70mph on dual carriageways for cars and lower for other traffic classes. Any other speed limit will require repeater signs. Motorways have different rules, but they are beyond the scope of this guide.

### 3.8 Warning

It's quite obvious what warning signs are for and they cover all sorts of potential hazards ahead. Some signs are often used such as bends or crossroads and some are more rarely used such as military vehicles or side winds.

*This pair of signs warns of pedestrians being in the road ahead and can be used where there is an intermittent or no footway. It is not intended to be used to highlight uncontrolled crossings as it has here on a 50mph dual carriageway.*

Many warning signs and the hazards they mark are aimed at drivers moving at some speed and so would be expected on roads with higher speed limits, although that are sometimes used in urban areas where they really do not add to highway safety and overuse means their meaning can be diminished. Warning signs for hazards such as low bridges provide a more vital service in all locations.

### 3.9 Informatory

Signs provide all sorts of other information for many applications such marking a county boundary, providing information about emergency telephones on trunk roads, marking bus and tram stops, highlighting traffic cameras, showing a street is a “no through road” (sometimes with an except cycles sub-plate) and many others.


*A “no through road” sign showing there is a through-route for cycling with the exception plate.*

### 3.10 Directional

These signs also provide information to help guide people to their destinations including which direction to take at junctions and which lane to get into for their destination (such as on approaching slip roads).

Signs can be aimed at drivers, people cycling and people walking. In urban areas, these signs should be at an appropriate size and scale for the speed limit, type of user and prevailing conditions because they can often end up dominating the street scene.


*This directional sign is being used to direct cycle traffic to a toucan crossing and it shows the route to be taken beyond because the road layout ahead isn’t immediately obvious.*

### 3.11 Markings

As with upright traffic signs, markings are provided to warn, inform and regulate with similar issues of specification and over-use being common.

*The most famous zebra crossing in the world at Abbey Road in Westminster; as used by the Beatles on their Abbey Road album cover.*

For regulation, certain road markings are required such as those associated with zebra crossings where the zig-zags, stripes (and elephant feet at parallel crossings) and stop line markings must be used to define the crossing (zig-zags aren’t required on cycle tracks).

Give way markings (a parallel dotted line) are regulatory, but entirely optional because UK convention is that people in the side street should give way to people on the main road However, the markings can be useful to reinforce priority. The markings can be used with a triangular road marking where the side street is perhaps busier and both can be used together with an upright give way sign. There is more detailed advice available, but in general, using all of the give way elements should be reserved for where a busy road meets another,

*Give way markings, a triangle and an upright sign all being used within a traffic-calmed 20mph residential street. Inappropriate clutter.*

The use of the marking, triangle and sign should be used sparingly, but it's often over-used in quiet residential streets, sometimes in an attempt to deal with a collision problem that actually requires some more in-depth design work.

### 3.12 Traffic signals

Traffic signals are also traffic signs. In general, the more complex a situation, the more likely it is that signals will create both visual and physical clutter. There is regulation and guidance on their installation which can unavoidably lead to clutter, but equally, some designs over-specify the number of signals leading to some very complex layouts.

*A junction with slip roads and multi-stage pedestrian crossings significantly increasing the number of signals.*

Traffic signal installations will have a cabinet containing the controllers. There will sometimes be a separate power feeder pillar. These should be placed where they can be easily accessed for maintenance, but out of any walking or cycling desire lines.

*This junction has cycle crossings which adds signal heads. However, with a simplified layout and careful placement, the minimum of signals required for safe operation are provided.*

## 4.0 Parking & Loading

### 4.1 Overview

Beyond parking traffic signs and road markings, the actual way car parking and vehicle loading is laid out can have a significant impact on how a street operates and parking especially is clutter in its own right. Of course, in areas without parking controls, lines of parked vehicles is unregulated clutter in its own right.

We also need to consider cycle parking as it is becoming increasingly important where towns and cities are trying to shift people to more sustainable travel modes as well as the rise of dockless cycle and scooter hire systems.

### 4.2 Parking & Loading Bays

Parking and loading bays will need to be defined where controlled by a traffic order. This is usually within a box formed in road markings, but contrasting surface materials can also be used. It's hard to avoid the need to mark bays and so perhaps the only decluttering available is to only mark where there is a traffic order.

*This loading bay is the area of small element paving surrounded by flush kerbs.*

As well as traffic signs, there may be paid-for parking arrangements which include pay-and-display machines. Footway width will be the

### 4.3 Footway Parking & Loading

Footway parking is often an indicator that an area has simply too much demand or that drivers want to "protect" their vehicles being hit. In some places it is regulated and in others it's a free for all, but it often ruins walkability and in some cases, physically prevents people passing.

Some commentators suggest that footway parking should be allowed subject to allowing people to get past, but as walking is often a social activity, space for side by side walking would prevent footway parking in many cases.

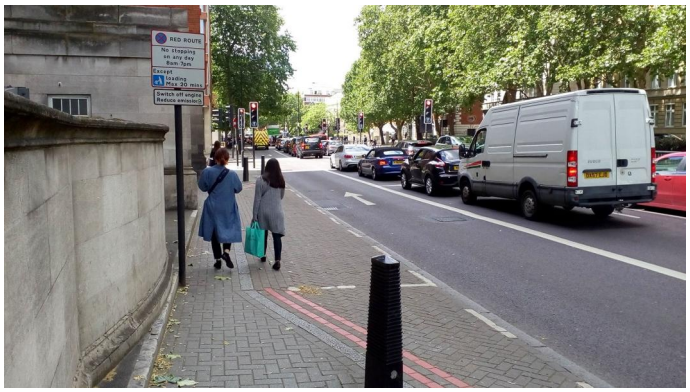
*In this street, the permitted footway parking narrows the footways to the point where they are difficult to use by many people. One side really needs parking banned.*

Some places have blanket bans with the practice being allowed in marked bays and some places have brought in local footway parking bans by traffic order. Ironically, this has

added to street clutter with need to explain the ban on entry to an area as well as signage to explain where footway parking is permitted and where the area ends.


*An entry sign to an area where footway parking is banned in Stevenage. Just out of view is the second sign on the either side of the street adding to the clutter.*

Loading bays can also be provided on the footway, although it will often require significant strengthening works (sometimes known as “loading pads”. In some locations, loading needs may be in conflict pedestrian space and so loading can be controlled to be outside of times where there are peak pedestrian flows.



*Loading within the footway width may be sporadically used, but when in use, pedestrian space is too narrow.*

### 4.5 Cycle Parking

On-street parking for cycles needs careful thought on where and how it is positioned. It is often the case that parking stands are provided on the footway without any thought given the larger space taken up when cycles are parked compared to the stands being empty. If cycle parking is placed on the footway, then it should be away from pedestrian desire lines and preferably within more general clutter lines (see Section 12.6).

Poorly designed cycle parking can create a significant risk of injury to visually impaired people who may find it difficult to detect cycles, especially where the encroach on areas which would usually be free of clutter.

In some cases, cycle parking hoops can be attached to lighting columns and sign posts to provide incidental parking places, although again the in-use space taken up is a key consideration.

*This footway is wide and so it is probably not in the way of people walking, but it is too close the carriageway and cycles could be clipped by drivers.*

Cycle parking can be provided within the carriageway, but it requires a traffic order to restrict the space for cycle parking. Alternatively, an area of footway could be built-out into the carriageway which avoids the need for a traffic order.

Carriageway cycle parking is also more likely to be accessible for those using non-standard, adapted and cargocycles as they don't need to lift them onto the footway and they will not create so many problems for visually impaired people.


*Hire cycle docking station within an on-carriageway bay.*


*Novelty cycle parking making a serious point from within the carriageway.*

As well as hire cycle docking stations and cycle parking hoops in groups, we may wish to provide more secure cycle parking in places such as residential areas where people don't have space indoors. Secure units are too large for most footways so need to go in the carriageway.

*Secure on-street cycle parking. Curved cover opens for those with access and cycles are also locked onto internal hoops.*

Dockless cycle (and scooter) hire is becoming popular, but it creates even more clutter issues where the cycles can be left in the street. Some authorities are using marked bays to encourage hirers to leave them in sensible places.


*Dockless cycle hire cycles left in a marked bay.*


*This operator uses geofenced cycle parking places to ensure cycles are not left in unsuitable locations between hires.*

Some dockless cycle hire systems use geofenced cycle parking places to ensure that cycles are left in designated places. Where public cycle parking stands are used, the operator will have a virtual capacity and if full, the user will need to find another location.


*Electric scooters being stored in a group as part of a trial in the Olympic Park, London*

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# 5.0 Telecommunications & Utilities

## 5.1 Overview

Perhaps more than any other utility, the telecommunications industry installs a great deal of equipment on our streets. This section discusses the types of equipment that we might see and how perhaps its impact can be minimised. It also covers other utilities, although they generally have less impact on clutter.

Utility operators have a statutory right to install their equipment in the street, even cabinets up to a certain size. Anything larger is subject to some planning control, but it follows the “prior approval” process where a planning authority would need to refuse planning consent within a limited time of being served an application. A reason for refusal could include the impact on street users, but this requires the planning authority to be fully aware of the issues.

*Most street cabinets are permitted development, but they are often poorly placed by the operator and this is often missed by planning authorities.*

## 5.2 Mobile telephony

Mobile telephony relies on masts to convey signals between handsets and the wired telecommunications networks. The masts themselves don’t take up much space, although they add to visual street clutter, but with faster data transfer and increasingly larger data flow, the cabinets which accompany masts can become significant installations.

*The mobile telephone mast is supported by four control and power cabinets.*

## 5.3 Public telephony

The days of the iconic red telephone kiosks are over, save for examples preserved with listing or as a curiosity in a village. Public telephone kiosks have been in decline for many years with the rise of mobile phones, but there is still a requirement for public telephones for 999 calls and community needs where people may not have access to their own telephone (called a Universal Service Obligation). The USO applies to British Telecommunications and KCOM in East Yorkshire. The USO has been extended to broadband services more recently.

The problem with telephone kiosks is they are a maintenance liability and so in order to offset the costs of maintaining them, we have seen them being used as advertising sites. The modern equivalents are now street monoliths which carry electronic advertising to pay for the units which provide free telephone calls without the need for a handset, free broadband and other services via a touchscreen.

As with any piece of street furniture, care on placement is required so that they do not block desire lines or reduce the effective width.

*Electronic monolith which is restricting the effective footway width.*

### 5.4 Other utilities

Most other utilities rarely create physical street clutter because they are buried. Occasionally there might be a marker post or a telemetry pillar (for transmitting water pressure and flow for example).

Changing street layouts can be a challenge when buried utilities need moving, but it's not a clutter issue.

*The hidden tangle of buried cables and ducts marked out before repair works.*

Telegraph poles with overhead telephone wires are still used, although this tends to be in suburban and rural areas and in some places, there are overhead power cables ranging from telegraph pole scale right up to high voltage transmission lines.

*A telegraph pole with aerial wires to individual dwellings.*

### 5.5 Street lighting

Street lighting is a feature which has earned its place in the street environment for safety and security, however, poor placement can create clutter for people walking.

There's also an aesthetic debate – should lighting columns be ornate and/ or obvious, or

should they blend into their surroundings. Our view would be the latter, but it is subjective. It is possibly to use highway authority powers to negotiate with building owners to place lighting units on their buildings, although this is something not seen very often in the UK.

*Street lighting mounted on buildings. Deventer, The Netherlands.*

The general principle for street lighting is that side streets will have lower height columns (5 or 6 metres) and main roads higher columns (8 or 10 metres usually). In terms of positioning, the rule of thumb is that they will be placed opposite and adjacent to junction, near points of conflict and on the outside of bends as a priority. The gaps that are left are then served by columns placed on alternating sides of the street. Larger roads may have lighting on both sides in parallel or centrally placed lighting on dual carriageways.

As with positioning sign posts (see 3.13), the positioning of lighting columns will reduce the effective width of a footway if placed kerbside. Depending on the type of luminaire being used, there will be an optimum position for illumination, but bracket arms can be used for extra flexibility.

### 5.6 Street works

Clutter can be transient and where utilities are concerned, it is the installation and maintenance of them which create clutter. While of course this isn't an aesthetic issue, work needs to be done after all, poorly arranged temporary traffic management can be be inconvenient and at its worst, it can physically prevent people getting around.


*Whilst this worksite has space available to pass, the layout pushes people walking and cycling together.*

Detailed advice on street works can be found in Safety at Street Works and Road Works: A Code of Practice [4].

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## 6.0 Motor Vehicle Charging

### 6.1 Overview

The rise of electric vehicles (EVs) has the potential to radically subsume street space for private motor vehicles and with it, create a significant increase in clutter. This section looks at some of the challenges and how design might mitigate some of the issues. One of the key issues created by the uptake of EVs is fuelling no longer universally takes place on petrol filling station forecourts and so there is pressure for charging infrastructure elsewhere.

*A private charging cable left across the footway which creates a trip risk.*
*(Photograph credit: Jo Rigby)*

### 6.2 EV chargers

We are essentially dealing with four types of charger; slow, fast, rapid and super rapid. They are different pieces of technology and their difference is based on how a vehicle can be charged. Super rapid is being developed, but it's still relatively rare and in general, the technology keeps evolving more generally.

*On-street fast charger.*

The power grid operates under alternating current (AC), whereas the batteries in an EV are charged from direct current (DC). For slow and fast charging, the vehicle has an on-board "rectifier" which converts AC to DC for charging batteries whereas a rapid charger converts AC to DC within the charger itself. The reason for this is the kit to change AC to DC for rapid charging is bulky and heavy making it impractical to carry in a car.


*Rapid charger.*

Slow chargers take several hours to charge a EV car, fast chargers take a few hours and rapid chargers seek to deliver an almost full charge in less than an hour. Vehicle

compatibility and design varies considerably, but generally the more expensive end of the marker allows rapid charging whereas cheaper vehicles do not.

*Effective footway width lost to a row of on-street chargers.*

From a clutter point of view, slow/ fast chargers can be relatively small and resemble bollards. Slow/ fast chargers can even be fitted within existing lighting columns to try and keep clutter to a minimum.

Rapid chargers take up lots of space and so they may constrain footway width. Individual and groups of chargers will often have a separate feeder pillar which contains the connection to the distribution network operator (DNO) which owns the local power grid infrastructure with each charger being fed from from the feeder pillar.

Feeder pillars also contain the meter for the installation, although some configurations provide meters inside the charging units. Of course, feeder pillars are another piece of kit on the street and so contribute to clutter.


*Rapid charger with a feeder pillar in the distance (on the right). The footway has been widened to compensate for the loss of space created by the charging unit.*

With all chargers, we have cables running along the highway which can pose a risk to people tripping over them and in some cases, they will block the route of people wanting to cross the road. On-street chargers tend to be installed in the footway behind the kerb. As a general principle, this means keeping them 0.45 metres from the kerb to stop them being clipped by wing mirrors/ cycle handlebars when a parking space is not occupied (which is the general convention for street furniture on 20mph and 30mph streets).

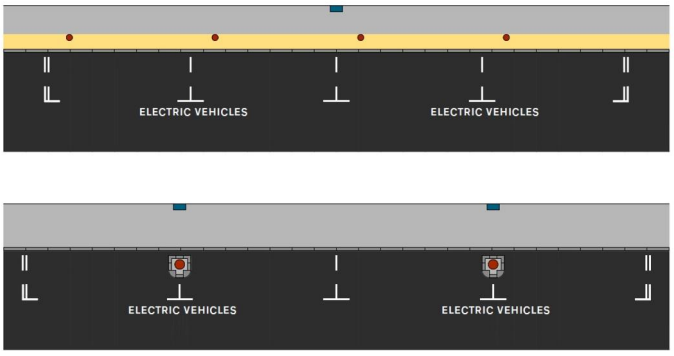
A single EV charging unit will momentarily reduce the effective footway width, whereas a long run will essentially sterilise an entire strip of footway.

### 6.3 Mitigating Clutter

For people to be able to access on-street EV charging, parking bays will need to be created

and reserved because non-EVs parked by a charger is going to defeat the object. This in itself creates additional physical clutter from traffic signs and some visual clutter from carriageway markings. However, the need to provide bays might assist with mitigating physical clutter if a proper design-led approach is taken.

If there isn't enough space on the footway, then the chargers could be placed in the carriageway, either on islands or protected by bollards. This means that other than feeder pillars, the footway is less obstructed. The parking bay signs for the EV bays could also be placed in the carriageway with this approach.




*Chargers on the footway (red) sterilise a strip of the footway (buff), whereas chargers in the carriageway leave the footway clear, other than feeder pillars (blue).*

The disadvantages of in-carriageway chargers is that they are probably more likely to be hit by drivers, that they themselves sterilise street space which could be used for other purposes and they are less efficient at using longitudinal space because the charger installations utilise some of the bay length.

*EV charger placed on a carriageway island, Carlyle Road, Bristol.*
*(Photograph credit: Joe Dunckley/ Photocatalyst)*

Of course, a good way to mitigate clutter is to site chargers in off-street car parks rather than on-street.

*Charger in a public car park.*

### 6.4 The Future

One theoretical future scenario will see the entire fleet becoming electric and it does raise a question on how will it be possible to provide on-street charging for all those who desire it.

Controlled parking zones tend to be in more densely populated areas and because they are already under control, bays can be gradually

swapped to EV use. Of course, there are places where the footways are too narrow and this must mean a reduction in capacity for EVs because of the physical space needed for chargers being placed in the carriageway. Where there is no control of space for parking, then new controls will have to be brought in, because unless people have somewhere to charge off-street, there will be demand for on-street charging to be provided. It is also not just about slow charging, people will demand access to rapid chargers and it is difficult to see just how this will be provided to the level of charging needed for a fully electric fleet without significant impacts on street clutter.

There is work being undertaken on ‘wireless charging’ which uses electromagnet induction. The system uses charging pads buried in parking spaces to charge vehicles wirelessly. A more advanced system would see pads buried in the carriageway to charge vehicles as they are driven which and this is an area of research for automatic vehicle use. Again, the use of wireless charging in parking spaces sterilises street space, but it could remove the charge point clutter.

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## 7.0 Security & Counter Terrorism

### 7.1 Overview

Counter-terrorism is often used to justify the installation of bollards and barricades on the street and in the UK, but which create issues for users through the clutter added;

There are two main areas of concern;

- Vehicle delivery of an improvised explosive device (IED);
- Vehicles being driven into crowds of people.

The catch-all term for dealing with these risks is known as *hostile vehicle mitigation.*

### 7.2 Vehicle Delivered IEDs

In the case of IEDs, measures are deployed around key buildings or installations to provide *stand-off distance* between a potential device and the target. The force of a blast decreases non-linearly with distance and so a calculation can be made for an optimum distance at which bollards or other measures can be deployed.

*Bollards protecting a building (behind the photographer) interfering with a zebra crossing.*

### 7.3 Crowd Protection

Crowds of people at transport interchanges, shopping streets, markets and so on have been the target of terrorist attacks where a vehicle is driven into a crowd. The use of physical measures means that potential vehicle incursion is prevented.

### 7.4 Problems

The most visual issue is we with hostile vehicle mitigation is we end up with more clutter on the street which can look particularly ugly, but it can create other issues which might not be immediately obvious;

- Reduction of effective footway width,
- Collision risk,
- Impact on blind and visually impaired people,
- Impact on people cycling,

*This steel barrier was placed on Westminster Bridge in London in the aftermath of an attack by someone driving along the footway and hitting people walking.*

The example of Westminster Bridge (above) creates a situation where people walking on the bridge are protected from the possibility of an

attack, but every person cycling across the bridge are now at risk of being pinned between the barrier and a poorly driven vehicle.

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*Bollards providing protection to an adjacent building which significantly reduce the available footway width.*

Bollard systems at least provide space for people to flow around. The recommended “air gap” is 1.2 metres, although that will be an issue for people using some types of cycle.


*Counter-terrorism bollards used to protect a station entrance.*

Further information is available in Traffic Advisory Leaflet 2/13 Bollards & Pedestrian Movement [5], which is actually about bollards used for counter-terrorism rather than general use.

## 8.0 Bus Stops

### 8.1 Overview

In an urban setting, but stops provide a necessary service, but they are localised generators of clutter. Formalised bus stops provide the opportunity to ensure the kerbside is compatible with low floor buses as well as the opportunity to provide seating and shelter for those who require it.

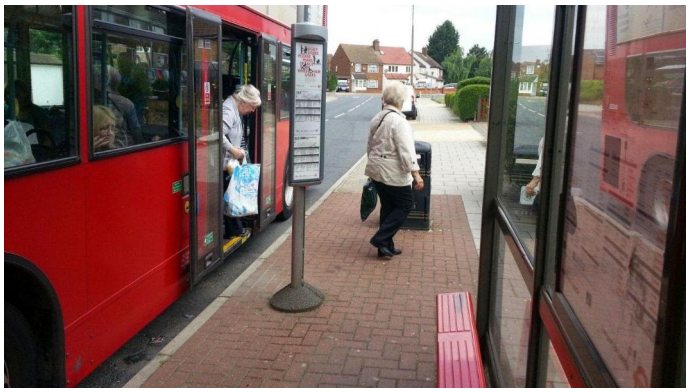
### 8.2 The stop environment

A basic bus stop provision might just consist of a bus stop flag which advertises the stop position and gives details of the services stopping. Depending on the use patterns, some stops benefit from shelters where people tend to wait for an outgoing service and some don't need shelters where people tend to be dropped off on return services.


*An accessible bus stop with a shelter that doesn't block the footway for people passing by.*

Where flags and shelters are used, then it is important that they aren't positioned in a way which prevents people walking past the stop and equally, that they are not positioned to make it difficult to board or alight from a bus.

This can sometimes be challenging, although there are shelters which can take up a minimum of space and flags which can be affixed to the top of the shelter. Flags can also be placed kerbside or at the rear of the footway with the latter potentially being more appropriate where a footway is narrow. Bins are often provided at bus stops, but care should be taken with positioning as they are often placed by us stop flags risking obstruction of loading doors.



*An accessible bus stop with pedestrian space behind to pass, although the bus driver has pulled forward slightly because of the poor bin positioning.*

Where footway space is constrained, then it is possible to build the footway out to provide a bus stop waiting area away from the pedestrian design line. This also helps buses stay in the flow of general traffic which minimises dwell time and avoids the need for the bus driver to find a gap in the traffic stream.

*This build-out places the bus stop out from a line of parked vehicles, but it also provides space for a shelter and flag.*

### 8.3 Bus stops and cycling

There are three ways to manage people cycling at bus stops; integration with traffic on the road (including bus lanes), people walking and cycling sharing the space space and people cycling being taken behind the passenger area (known as a floating bus stop or a bus stop bypass).

*Space shared between people walking and cycling. This is less desirable, but in this example, at least the clutter has been kept to a minimum to maximise space.*

There are plenty of views on the subject, however we would suggest that integration with traffic does not protect people cycling adequately and sharing space between people walking and cycling simply puts people at odds with each other. We would therefore advocate taking people cycling behind the passenger area.


*Even in a widened bus lane, people having to overtake buses at bus stops does not feel safe for most people.*

From a cycling point of view, clutter will be extraneous bollards and other street furniture which presents a risk to catching handlebars (or other parts of a cycle) or the body of someone cycling.


*The floating passenger area here is not particular wide and shelter proximity to the cycle track both creates a risk to people cycling clipping it and obscures the views between passenger and people cycling.*

From both a walking and cycling perspective, maximising visibility approaching the through the bus stop area is vital so people can see and be seen, especially so people cycling can ensure they take responsibility passing the bus stop given they both have the capacity to injure someone as the faster moving mode as well as themselves.

*In this example, the shelter is kerbside and has no end screens to afford excellent visibility. The bollard by the designated crossing point is still a risk to people cycling however.*

Further information is available in Transport for London's Accessible Bus Stop Design Guidance [6].

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# 9.0 Cycling

## 9.1 Overview

Clutter affecting people cycling is risky because it can affect forward visibility, handling of a cycle and be something to collide with. In addition, clutter can physically prevent some people being able to use a cycle track or other piece of infrastructure.

## 9.2 Access controls

Where a street has had through traffic filtered out or where motor access to a cycle path is being is being prevented, access control might be used. The placement of bollards, gates and other obstructions all provide something that someone cycling could collide with and get hurt or physically prevent access for uses of non-standard or adapted cycles. More information can be found in Wheels for Wellbeing's Guide to Inclusive Cycling [7].


*This A-type barrier is designed to stop people accessing paths with motorcycles which allowing wheelchair users through. The problem is, they also often stop standard cycle access and usually stop non-standard and adapted cycles.*

The safest and most accessible solution is to have no obstructions. In some cases, access control is dealt with using traffic signs indicating a prohibition of motor vehicles, but this requires enforcement.


*A camera-enforced access control which provides plenty of space for cycling away from the timber planters.*

If a self-enforcing solution is required, then the use of planters, traffic islands or bollards can be a solution. The best arrangement has odd numbers of bollards (so people cycling don't meet head on) perhaps used with other features. Removable bollards assist with emergency access and bollards which can be overrun by emergency vehicles are also more forgiving in the case of someone cycling clipping one.

A 1.5 metre "air gap" between the features will ensure that full access for people cycling can be maintained while preventing access by motor vehicles. Of course, motorcycles will also be able to pass and it might be a pragmatic decision to allow their passage. Any features should be conspicuous both day and night.

*Access control using conspicuous overrunable bollards with 1.5 metre air gap.*

### 9.3 General clutter issues

Items placed within the dynamic envelope of a rider and their cycle risk a collision. Some non-standard or adapted cycles will be wider than the rider and so this needs to be taken into account too. In general terms, this means that street furniture (see Section 10.0) will generally need to be placed 0.5 metres away from the edge of a carriageway or cycle track.

*A lighting column placed at the edge of a cycle track creates a risk of "handlebar strike" which could easily cause the rider to fall. This should be 0.5m outside the edge of the cycle track.*

Where items are placed closer, then the effective width for cycling is reduced. The advice given in Local Transport Note 1/20 Cycle Infrastructure Design (Table 5.3) [8] suggests that kerbs between 61mm and 150mm high reduce effective width by 200mm, vertical features between 151mm to 600mm reduce it by 250m and vertical features over 600mm by 500mm.

*A gently sloping "forgiving" kerb between a cycle track and a footway allowing the full width of the cycle track to be used.*

The effective width is important because users will keep away from features which could end up with them being hurt from a collision.

*A wand-protected cycle lane Bow Road, East London. The wands present a continuous "wall" which reduces the effective width by 500mm and the bridge support provides another 500mm loss making it very narrow for cycle traffic to pass.*

## 10.0 General issues

### 10.1 Overview

This section is a little bit of a round up of the other “things” we find on the streets but which add to clutter including items covered by the catch-all term of “street furniture” plus the important subject of tactile paving.

### 10.2 Pedestrian guard rail

Pedestrian guardrail is another common street element which has questionable benefits. As mentioned in 2.3, guardrail is used to manage the flow of pedestrians to the benefit of people driving by preventing people crossing where they like or by forcing them to use designated crossing points.

Although preventing people from crossing in risky locations may be framed in road safety terms, it will be a symptom of lack of forward planning to accommodate people’s walking and cycling desire lines.

*This 1980s urban dual carriageway cut through an historic street and severed long established desire lines which uses guardrail to push people to cross at other locations.*

*Extensive use of guardrail at a junction designed for motor traffic capacity to force people to cross in the “right” place.*

Guardrail is often used at multi-stage, staggered, signalised crossings to stop people crossing on their desire line. Single stage crossings are the most accommodating of desire lines, but with staggered arrangements, guardrail isn’t necessarily required, although some people feel safer with it and some visually impaired people may use it as a navigation aid through the crossing.

*A staggered crossing without guardrail. The kerbs are to help long cane users to navigate the crossing, but could also be a trip risk.*

Guardrail is also extensively used near schools ostensibly to prevent children running into the road, although it often ends up just reducing

footway space. It is sometimes used to discourage car parking by schools, but just encourages parents and carers to use the live traffic side of vehicles with children.

*Guardrail by a school not deterring parking.*

Guardrail is often used opposite entrances to schools, parks and other places where children might be present. Again, this is to try and prevent them from running into the road, but footway space is affected.

Occasionally, guardrail does perform a direct safety function and that's where there is a significant drop or a change in level high enough that it will cause someone to fall.

*Guardrail being used where the carriageway is at a much lower level than the footway.*

Although there is no evidence that guardrail actually creates an objectively safer environment, it can make people feel safe and so this may need to be taken into account in any programme of removals. It is also worth noting that it is not designed to stop errant vehicles and it will collapse if hit, even at lower speeds. Guardrail is also sometimes used to lock cycles in the absence of proper cycle parking and so removals should take this into account.

Further guidance can be found in Local Transport Note 2/09 Pedestrian Guardrailing [9], including an assessment framework.

### 10.3 Bollards

Generally, bollards are used to keep motor vehicles off footways, for security and counter-terrorism (see 7.0).

For general use to stop parking, vehicle access or overrun, a row of bollards will reduce the effective width of the footway as they will be set back from the kerbside to prevent vehicle wing mirrors and cycle handlebars from clipping them. They also block drivers' view of the footway at certain angles.

*Bollards used to stop drivers parking on shop forecourts.*

To deal with parking issues, a local parking management scheme might be a solution. For occasional and unintended overrun, a stronger footway construction to the immediate kerbside might assist. High kerbs are sometimes used, but these are harder for people to step up and down to cross the road.

Occasionally, there will be a need to protect corners at junctions or other areas of footway from occasional vehicle overrun. Whilst bollards can discourage overrun, they can be damaged and knocked over, especially by people driving vans and HGVs.

*Bollards protecting the crossing points at this side street. The nearest one has been recently reset after being knocked over.*

The *bell bollard* is an option – a heavy duty, bell-shaped unit which is shaped to deflect vehicle wheels.

*A bell bollard used on the corner of a tightly laid out junction.*

Bell bollards are notorious for being mounted by careless drivers, but from a clutter point of view, they can be more effective than several bollards. Extreme care in placement is required, however, as they can be a trip risk for pedestrians and need to be sited well away from desire lines.

### 10.4 Advertising

Advertising in the public realm is a contentious issue. Some people consider it part of the vitality of the street, a way of showing that businesses are open and in some cases, providing a public service function. Some people view it as a distraction, a source of visual and physical clutter and an unnecessary intrusion.

*A proliferation of A-boards providing both visual and physical clutter.*

*A digital billboard behind traffic signals could mean drivers miss the signal against a brightly lit display.*

In general terms, outdoor advertising is covered by planning rules with some automatically being permitted, such as building names, bus stop timetables, estate agent signs and other small advertisements. Billboards and some shop front signage require planning consent. Small adversing boards, generally known as A-boards, normally don't require planning consent, although the rules can vary depending on local planning authority adopted policy.

Larger advertisements and billboard type installations requite planning consent. The impact on street-scene and in some cases, highway safety (usually driver distraction), are reasons for refusal. Each proposal is decided on its merits, but from a clutter point of view a planning refusal will need to be properly based in planning law; and it can be appealed.

### 10.5 Seating

Some people need regular places to sit in order to be able to walk any distance, but seating also gives people the option to simply stop and enjoy the street, make a phone call, or read a book.

From a clutter point of view, seating interferes with effective footway width, but designers should remember that in addition to the depth of space taken by seating, people sat also need space for their legs and maybe shopping bags

*Seating recessed into a landscaped area reduces clutter on the crossing desire line.*

### 10.6 Tactile paving

Tactile paving is a ubiquitous feature in our streets, but it should be used with care and consistency in order to ensure it warns and guides the visually impaired people it is designed for.

Guidance on the Use of Tactile Paving Surfaces [10] is an essential read for designers and the information provided will help ensure the right type of tactile pacing is provided for the right circumstance. In many cases, it's use is safety-critical.

*This puffin crossing has the correct shape and colour of tactile paving for a controlled crossing. It guides visually impaired uses to the push button on the corner of the 'L' shaped arrangement with the push button in easy reach. Also note that the guard railing doesn't extend beyond the push button post.*

There are plenty of examples of layouts where the wrong type or arrangement of tactile paving have been used and where a street is being audited for clutter reduction, non-compliant layouts should be noted for remedial action.

*This is a cycle track (left) and footway (right) interrupted by a side street. There is an incorrect use of tactile paving types and layouts which renders the layout incomprehensible to visually impaired people.*

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## 11.0 Temporary and experimental street changes

### 11.1 Overview

Streets are not fixed. The needs of citizens mean that that they change over time. In some cases there are temporary needs and sometimes there are needs which have to be explored to be understood. This section looks at temporary and interim changes.

### 11.2 Temporary changes

Utility works, highway maintenance (see Section 5.6), events, markets and flooding are examples of planned and unplanned occurrences which require or lead to temporary changes in highway layouts or space allocation.

*Temporary street layout on Fiisgaten, Malmö as part of the city's "Summer Streets" programme with the footways being kept clear.*

Temporary changes can create new sources of clutter which can disrupt people's desire lines, effective footway width can be curtailed and in some cases, changes may physically prevent some people being able to use the street. It is therefore that the same thought processes are follows as we would for designing a permanent layout including the provision of clear and legible routes through the temporary layout, maintaining pedestrian crossing points and associated dropped kerbs.

Reactive changes are potentially more likely to create clutter issues and so those involved in making reactive (and often rapid) changes should be trained to understand and anticipate issues.

### 11.3 Experimental changes

While temporary changes to streets are for a period of time, experimental changes are an opportunity to try new highway layouts and to gather data on their impacts. Public engagement (see Section 12.8) is an important aspect of the experimental process as it helps create community buy-in and provides ways of identifying and working with people who might be impacted by a scheme.

*Bradford Street, Birmingham. An experimental reallocation of road space allowing the live testing and evaluation of a street layout.*

Transport for All's "Pave The Way" report [11] examined the impact that the creation of Low Traffic Neighbourhoods (and other issues) had on disabled people from their lived experience. The Covid pandemic led to lots of schemes being implemented by local highway authorities using experimental powers in the Road Traffic Regulation Act 1984 and the report highlights issues with a lack of engagement and understanding by highway authorities.

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Experimentation is an excellent way of drawing out issues, but the delivery process needs to be resourced properly to enable meaningful engagement to take place and for adjustments to be made as projects are developed. Some of the materials used in experimental schemes can be basic and easily relocated, but the same principles around effective footway space, the 1.5m air gap for cycling, conspicuity and the potential for people to walk or cycling into features apply.


*Timber planters being used to filter out through-traffic from a street. The layout doesn't provide a 1.5 metre air gap for cycling their height may also be a handlebar collision risk.*

## 12.0 Clutter Reduction

### 12.1 Overview

Clutter often takes time to develop as things are added to the street in response to various issues such as the need for a parking sign, or a request for a bin. Sometimes this is within the highway authority's control either directly through owning the assets or by licencing them. There are also political and public expectation pressures where "something must be done" which often ends in more guardrail or traffic signs as a sop to the real issue which needs to be dealt with.

Sometimes control is indirect where other parties have statutory powers which make it more difficult for a highway authority to challenge such as telecommunications equipment. There may disconnect between planning and highways powers on some matters such as a restaurant applying for planning consent to place tables and chairs on the footway. This can be more pronounced where the highway and planning authorities are different organisations.


*Guardrail is often used for advertising banners.*

Of course clutter can also come as a result of unauthorised installations such as banners on pedestrian guardrail or signs placed on lighting columns and this requires enforcement action to clear.


*A sign used to advertise a business, chained to a lighting column.*

This section looks at some ways in which highway authorities can prevent, manage and remedy clutter.

### 12.2 Policy

Although there is plenty of legislation which can both enable and control clutter, it is rarely used in isolation. It is good practice to underpin enforcement and management with policies which can include the way local authorities approach various issues both through internal processes and how they deal with third parties, including the those with powers to install things (such as utilities) and the public.

Policy has to operate within the legal framework, but they will be politically approved to streamline processes. For example with A-boards, the policy approach ranges from

blanket “no A-boards permitted” approach to blanket tolerance, subject to conditions.

Having a policy assists enforcement staff in rapidly dealing with issues as they arises, whereas relying on following the overarching legislation means that the serving of notices may be required which can take time. Operational policies are also useful. For example, an authority may have a street furniture policy which guides staff involved in street design (including consultants) on how various items of street furniture will be deployed (and removed). This shouldn’t prevent designers specifying items which could be seen as clutter, just ensure thought is given.

With operational policies, there there should be provision for exceptions and escalations through a formal process to ensure that consistency is maintained and that all operational units act together rather in silos. One key operational policy would be around maintenance and how things are replaced when they are life-expired or damaged. For example, if a section of pedestrian guardrail is damaged, it is useful to consider if it should be replaced.

Some authorities have very prescriptive approaches to ensure consistency in how streets look and will be managed, including adopting those policies as Supplementary Planning Documents which have material consideration for planning applications (e.g. Westminster City Council – The Westminster Way [12]).

### 12.3 Combining uses

A good rule of thumb for placing things in a street is whether or not it performs a genuine function to assist people (which is of course open to a level of interpretation). Combining uses means that more than one useful job is done and this can pay clutter-busting dividends.


*Sign on a lighting column with a subsidiary post, but is such a large sign needed?*

The most simple combining uses is to install traffic signs on lighting columns as mentioned in Section 3.6. This is generally fine for parking

and other small signs, although larger ones might require subsidiary posts which could of themselves create clutter. There is also a need to think about whether large signs are appropriate in locations other than high speed roads.

Some authorities have entered into lighting private finance initiative (PFI) contracts where using lighting columns for adding signs can be costly if not properly incorporated into the contract as large signs mean a higher wind loading on the lighting column and therefore a shorter operational life. In fact, some PFI contracts make it harder to attach signs to lighting columns and so signs on posts end up be placed near lighting columns.

For traffic signals, it is possible to mount signal heads on lighting columns reduce reduces the near for a signal pole. Additionally push buttons can be added for crossings. This approach is probably best practiced as part of a street renewal when signals and lighting are replaced as both need to be properly designed and the desired lighting levels may end up with the scheme requiring additional columns.

*This traffic signal is placed on a lighting column which carries both main road lighting and footway task lighting.*

Bus stop flags are maybe the ultimate in combining uses. The example to the right provides the following functions;

- Flag at the top giving services served, stop name and direction,
- A timetable which includes space for general service information,
- A “no stopping” traffic sign which is used in conjunction with a bus stop clearway carriageway marking,
- A panel giving SMS text service information which users can find out the time until the next service arrival.

That’s quite a lot going for a piece of street furniture which takes up very little street space!


*A Transport for London bus stop flag.*

### 12.4 Decluttering traffic signs

For traffic signs and road markings, the best strategy is to ask questions. Is the sign or the marking required from a statutory or legal point of view? Is the sign required as a critical safety feature? Even if the answer is yes, there will often be options on size. If the answer is no, then really be clear on why it needs to be provided because ultimately, it's a maintenance liability.

As we have seen with some parking signs, mounting on buildings, walls and railings is an option, but we can also use lighting columns for smaller signs, including some lit signs. The guidance in the Traffic Signs Manual gives an indication on which signs could be mounted together. For example, speed limits and clearways could go on the same post with the speed limit at the top or two warning signs could be mounted on the same backing board.


*A one-way sign with a non-prescribed use of a plate below. Poor knowledge of signing rules is often a reason for sign clutter.*

Beware when assemblies become large and needing larger and more sign posts, because not only do they become clutter in their own right, the large posts will need careful design to ensure they are safe in the event of a motor vehicle collision.

Where posts are required, placement will depend on local circumstances. Verges are a useful if they exist, but otherwise care should be taken not to site posts in clear desire lines. On a wide footway, a kerbside position (with set-back from the edge) might be appropriate

because people tend to walk away from live traffic. On a narrow footway, a post placed kerbside will reduce the effective width and so should be placed to the rear of the footway. Renewal of signs and posts is always a good opportunity to think about how a replacement will be arranged.


*This sign and "wig-wag" signal warns of a school crossing patrol ahead. The sign and the signal is cantilevered with the post on the kerbside in line with the lighting columns for the street to maintain a clutter-free walking route.*

### 12.5 Use of materials

The choice of materials within the street-scene can be a very subjective issue and it is very easy to ruin the look of the street with inappropriate choices. As a general rule of thumb, less is more and the choice of materials should be the backdrop to the street and not the feature.

In some cases, materials can be used to reinforce the travelling paths for people walking, cycling and driving. Sometimes function will be blurred, but care should be taken when mixing modes because even a low level of motor traffic could end up dominating the space. Trying to combine expensive paving with heavy vehicles will almost always lead to failure of the paving and so perhaps this is best reserved for where people walk.

*Van Gogh Walk in London repurposed road space for a community garden and informal area for play. Traffic is heavily controlled, but can access the space. The materials are a backdrop.*

*Lea Bridge Road in London utilises materials to clearly pick out walking, cycling and driving space as well as telling turning drivers that walking and cycling have priority.*

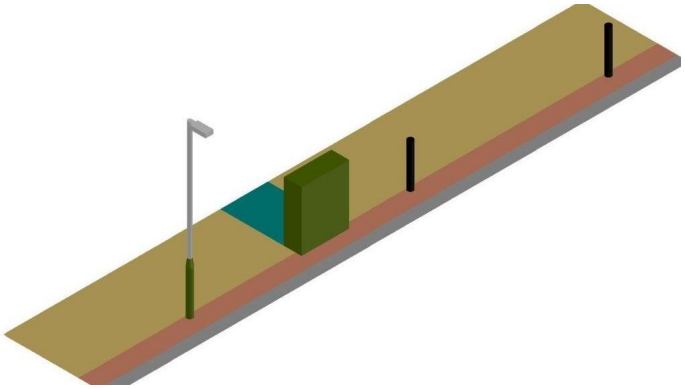
For cycle tracks, a machine-laid surface is a basic requirement. While colour has no legal significance, it can be very helpful to show where people are and should be cycling and it

also gives opportunities to provide a warmer feel than black asphalt. However, garish colours which try and compensate for poorly designed points of conflict will create visual clutter.

*Coronation Street, Salford. Light concrete flag paving with an asphalt carriageway; materials which allow the buildings to take centre stage.*

### 12.6 Clutter lines and zones

As we have seen, even with the best of approaches, there will still be a need for things to be placed in the street. Thought about the logical positioning of items is key in providing layouts which are consistent and intuitive. The use of clutter lines or zones is a helpful approach in this regard.



*The red strip here is a clutter line which contains street lighting, bollards and a cabinet although the cabinet reduces space locally.*

*Ada Lovelace Road, Cambridge. A clutter line is used to demarcate walking and cycling space, although the materials don't provide delineation and users rely in signs. having the trees and lighting columns in the verge would have given more walking and cycling space.*

Placing objects within desire lines is not only annoying for most users, they create injury risks for visually impaired people and make it more awkward for wheelchair users, mobility scooter users and people using pushchairs to make progress.

### 12.7 The multi-disciplinary team

The design and management of streets shouldn't be the preserve of a single discipline. As well as the movement and construction considerations of the highway engineer, there is a need to ensure there is compatibility with the built form using the skills of urban designers.

Accessibility needs input from professionals who have experience (often lived) of how it is the built environment that creates barriers to many disabled people. There's also the need for input by planners who see the bigger picture and by specialists in lighting, safety and even

flood management. The design, management and use of streets cannot be effective when people operate from silos.

### 12.8 Public Engagement

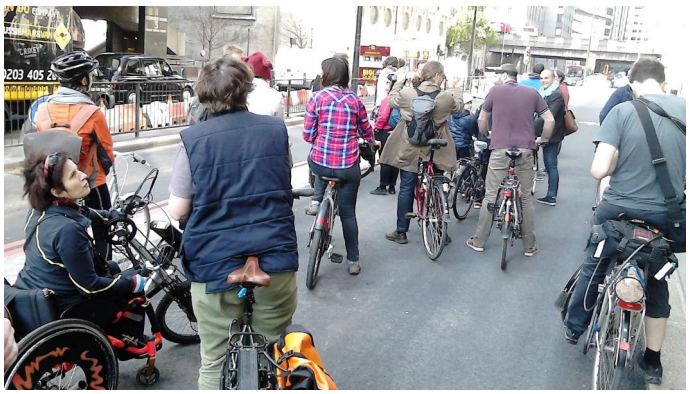
It is often the case that changes to street layouts are presented as schemes which are pretty much designed and there is little opportunity for communities to shape them. In fact, the best approaches to engagement seek to find common ground on issues and opportunities with communities before possible changes are developed with them.

*Effective engagement enables communities to determine what their local issues and priorities might be long before design work commences.*

While clutter comes from a variety of sources, it can be an issue explored through public engagement because although in many cases, people do like clutter-free layouts, there may be issues which can only be teased out through dialogue. For example one person's ugly guardrail is another person's secure cycle parking or a wish to add bollards to stop people driving up a pedestrian dropped kerb is a safety problem for a visually impaired person.

In some cases, engagement means one to one shadowing of users to examine problems from their point of view and while this takes a resource commitment, it can avoid schemes which create problems that will need fixing later and real insight into how people navigate their environment is invaluable experience for the designer.

"Infrastructure safaris" are a good way of engaging people. Places are walking or cycled which gives first-hand experience to designers and for people to discuss their own views with each other. These are great sessions away from a formal scheme consultation too as they can enable community members to engage with each other.



*An infrastructure safari allows people to discuss how they are finding a street in a live and dynamic situation.*

More information is available in CIHT's guide to Involving the Public and Other Stakeholders [13].

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## References


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www.cityinfinity.co.uk

@CityInfinityUK

contact@cityinfinity.co.uk