

Street Design in the UK

Pilot Survey

September 2018

**URBAN
DESIGN
GROUP**

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EXECUTIVE SUMMARY

This survey has obtained a picture of street design and adoption practice in Great Britain. While there are some councils that have been reported to have lead, required or encouraged outstanding examples of street design, there is an underlying concern at a system level including:

- Failures to adopt industry best practice in street design and the persistent use of outdated and questionable highway design standards dating from the 1960s or earlier.
- Failures to discharge statutory duties – such as the Public Sector Equality Duty, including attaching greater priority to accommodating large refuse collection vehicles than the needs of blind, partially sighted and elderly people.
- Failures to reflect adequately the common law duty of care owed to highway users.
- Failures to reflect current government policies and guidance – such as current planning policies and guidance.
- Management failures within local authorities including:
 - o The practices of individual highway authorities not reflecting the local authority's overall strategic objectives in its corporate plan, or in its own planning policies.
 - o Conflict between individual departments within individual local authorities or between county and district tiers.
 - o Failures to ensure that staff and consultants are up-to-date and competent to do the work being required of them, or to realise that professional staff who undertake work outside their area of competence are in breach of their professional codes of conduct and potentially working without professional indemnity insurance cover.

There are wider concerns that current funding constraints imposed on local authorities are incentivising the creation of poor quality development. The elimination of trees and landscaping, the use of poor quality materials, and the absence of community space such as parks, leads to a harsh environment that can have long term impacts on health and wellbeing, and impose costs on the NHS and social services.

Streets perform many different functions, not merely providing freedom of movement, but acting as areas for play, recreation and social contact as well as providing corridors for essential infrastructure including drainage, sewerage, water supply energy, communications, and waste management.

There is a concern that the underlying legislation, guidance and regulatory system that cover these areas, has become so complex and unwieldy, so disjointed and uncoordinated that it is unreasonable for designers, engineers and highway authorities to perform effectively.

What is good street design?

Design that:

- discharges statutory duties and the common law duty of care to highway users
- reflects latest industry best practice, such as Manual for Streets I & II and the full range of functions that a street performs.
- reflects wider Government policies and guidance in areas such as planning and public health, and not merely the movement of motor vehicles.
- supports the achievement of the goals in a local authority’s corporate plan.

Poor street design and layout is almost impossible to rectify – it needs to be right first time

Altering a street layout is expensive. Land and buildings may need to be bought and sold, and new foundations and drainage systems created. It is small wonder therefore that a street, once created, remains for a very long time. The Roman road network still forms a valued and important part of the backbone of the UK’s main road system. There are streets at the heart of towns and cities across the UK that date from early and middle medieval periods. Today, the permanence of streets is further reinforced by the presence of underground power cables, water supply pipes, gas mains, and electricity, telephone and communication cables. It is of immense importance that streets are well-designed from the outset. Poor street layout and design imposes long-term costs on society.

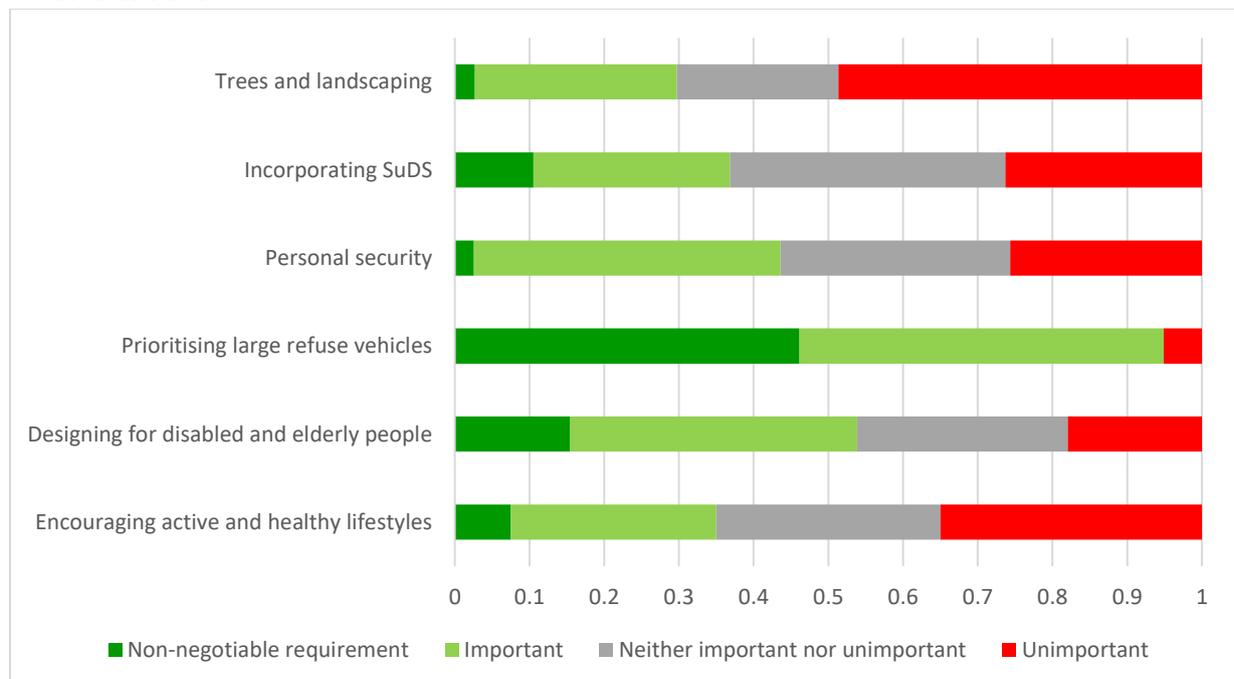
Key Survey Results

<p>Use of up-to date Street Design Guidance</p> <p>.....Policies, Practices and Standards based on Manual for Streets or the equivalent</p>	<p>18 percent of highway authorities were reported as using policies and practices based on Manual for Streets or the equivalent</p> <p>45 percent were reported as “officially “using such policies and practices, but in reality were not.</p> <p>36 percent were still using policies and practices based on DB32-(or the equivalent)</p>
<p>Up-to-date Professionals</p>	<p>Nearly one third of highway authorities were reported as employing professional staff who were not up-to-date.</p> <p>These individuals will be in breach of their professional codes of conduct if they are undertaking work they are not competent to do.</p> <p>By breaching codes of professional conduct they may invalidate their professional indemnity cover.</p>

Attitudes towards specific street design features and philosophies in Manual for Streets

Traditional main streets	rejected or discouraged by 30 percent of highway authorities, which require instead distributor roads
Permeable street layouts	required or encouraged by over 70 percent of highway authorities
Crossroads	rejected or discouraged by nearly 50 percent of highway authorities
Small side-road corner radii	rejected or discouraged by 27 percent of highway authorities
Level footways – not interrupted by vehicle crossings	rejected or discouraged by 47 percent of highway authorities
20mph speed limits	required or encouraged by 82 percent of highway authorities

General Attitudes

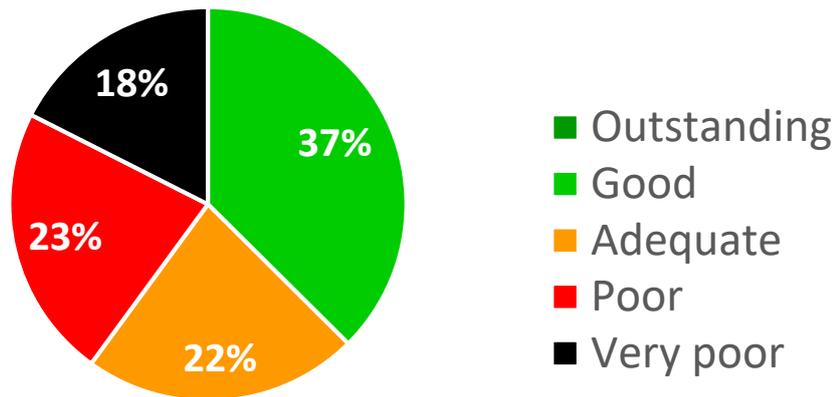


Just one eighth of authorities were reported as viewing designing for disabled and elderly people as more important than prioritising large refuse collection vehicles.

Designing for disabled and elderly people more important	12.5%
Both equally important	27.5%
Prioritising large refuse collection vehicles more important	60.0%

The Equality Act 2010 places a duty on local authorities, including the highways and waste collection service to have due regard to the need to eliminate discrimination and promote equality of opportunity.

Overall Performance of highway authorities



There is major work to be done to improve street design and adoption practice in Great Britain.

Poor performance by County Councils on street design and adoption

County councils were rated the worst performing of all authorities, poor being the average rating given.

The bulk of greenfield development takes place in county council areas. It is of great importance that they lead best practice in street design.

The effect is seen in new housing estates where pedestrians, cyclists, children, and elderly and disabled people are treated in an inferior way compared with large refuse collection vehicles.

The layouts involve excessive amounts of surfaced highway leading to increased land-take, loss of countryside, plus increased maintenance costs and flood risk.

Background to the Survey

2017 marked the 10th anniversary of the publication by the Department for Transport of *Manual for Streets*, and the withdrawal of *Design Bulletin 32 Residential Roads and Footpaths - Layout Considerations*. To mark the publication, the Urban Design Group at the end of 2017 undertook a pilot survey to assess the extent to which the recommendations contained within *Manual for Streets* have been adopted and implemented by highway authorities, and to obtain a general picture of street design practice. Its 140 Recognised Practitioners in Urban Design* were contacted, with a request to review the performance and practices of particular local authority. Results were obtained for over 33 of the 200 highway and road authorities across Great Britain.

It should be noted that in some there were highway authorities that were rated poorly that have nonetheless been responsible for individual schemes which represent outstanding practice. This may reflect inconsistencies in relation to officers' interpretation of regulations, individual opinion or that some applicants push harder to achieve the aspired design quality.

*Recognised Practitioners are members of the Urban Design Group with an established level of education and experience.

A short history of street design

Design Bulletin 32 represented the final evolutionary stage of a street design philosophy developed during the 20th century as society sought to find ways to live alongside the motor vehicle. Early in the century there had been considerable focus given to adding traffic capacity to urban streets and in the design of new inter-urban roads. A turning point occurred in the 1930s following mounting concern over the numbers of people being killed on the roads each year, the majority being pedestrians, including 1500 children. A philosophy developed of regulation and segregation, outlined further in the Cook report *Design and Layout of Roads in Built-up Areas* in 1946 which identified measures such as by-passes and ring roads, and the creation of cellular systems of main roads.

The approach was deployed and further developed in the New Towns programme and in the Buchanan Report: *Traffic in Towns*, published in 1963. The report developed a number of concepts including the **Distributor Road**: a road for the distribution of vehicles to areas of development, designed for efficient movement and generally having no frontage access; and the **Distributor Hierarchy**, comprising national, regional, primary district and local distributor roads. This was further codified in the Ministry of Transport's *Roads and Urban Areas* published in 1966. The objective was that "urban roads should be designed to be safe and to permit the free flow of traffic at reasonable speed." This was to be achieved by a system of segregation and the creation of primary, district and local distributor roads intended to keep traffic apart from "environmental areas" where people lived. Considerable attention was given to the design of highways and junctions that were optimised for the free and unimpeded movement of vehicles. Pedestrians and cyclists were to be directed, and sometimes channelled into formal crossing points.

Much has changed since then. The power, size and performance of vehicles has increased dramatically as have levels of car ownership and use, while walking has declined. Obesity has emerged as a grave problem. Today one in ten children aged 4-5 is obese, and one in five aged 10-11. There is an urgent awareness of the need to increase activity to reduce obesity levels, and the risk of people developing conditions such as heart disease, cancer, or type 2 diabetes. There is also awareness of the economic burden of caring for a growing proportion of the population with long term disability caused by lifestyle. There have been structural changes in towns in response to the growth in car ownership, including the decline of high streets, and the growth in out of town shopping centres where the only convenient means of access is by car. There are concerns over fossil fuel dependency, climate change, and an acceptance that motor vehicles are the principal source of urban air pollution.

Problems with 1960s style street layouts

Urban areas created in accordance with DB32 and its antecedents have a number of problems:

- ***Low density***

The guidance produces car-dependent suburban development. The low densities lead to unnecessary loss of countryside and translate into walking distances that are unnecessarily long. The cellular systems sometimes place the central shopping areas within a mini-ring road creating a further barrier to access by pedestrians.

- ***Distributor roads with no frontage access or natural surveillance***

The DfT's Manual for Streets warns that these roads are often very unsuccessful in terms of placemaking and providing for pedestrians and cyclists. The absence of natural surveillance disadvantages women and elderly people who are particularly sensitive to perceptions of personal security.

- ***Use of DMRB "Standard Roundabouts" within urban areas***

Manual for Streets warns that conventional roundabouts are not generally appropriate for residential developments, that they can have a negative impact on vulnerable road users, and often do little for the street scene. It also refers to problems faced by pedestrians who can find it difficult to anticipate the path of a vehicle on the roundabout.

- ***Wide corner radii on side-road entrances***

Radii used (such as 6, 10.5 and even 15 metres) create long paths across the mouth of the side road for all pedestrians, faster vehicle-pedestrian impact speeds, and difficulty for elderly people in assessing oncoming or turning traffic. Manual for Streets encourages tight corner radii, including the use of 1 metre kerb radii and quadrants.

- ***Crossroads prohibited or only permitted as an exception***
Manual for Streets states that Crossroads are convenient for pedestrians, as they minimise diversion from desire lines when crossing the street. They also make it easier to create permeable and legible street networks.
- ***Crossovers to private driveways that introduce excessive cross-fall across the entire width of the footway.***
Manual for Streets states that excessive cross-fall causes problems for people pushing prams and can be particularly difficult to negotiate for people with a mobility impairment, including wheelchair users. It recommends that where it is necessary to provide vehicle crossovers, the normal footway cross-fall (max 2.5 per cent) should be maintained as far as practicable from the back of the footway (900 mm minimum).
- ***Speed limits and design speeds that are beyond the capabilities of children to safely judge, and place pedestrians and cyclists at increased risk of death and serious injury.***
Traffic speeds above 20mph and high traffic volumes are linked to a reduced sense of social connectedness, and lower observed levels of play. (Bornat,D. 2016. “Housing Design for Community Life”). It may be that highway authorities are unaware of the full extent of their Common Law duty of care as detailed in Yetkin vs Newham EWCA 2010.

The strict use of DB32 based guidance will produce the layout of one of the post war New Towns such as Basildon, and, in effect, outlaw the recreation of the street layout of a market town, cathedral city, a Georgian-style quarter, a Victorian-style street grid, or an early Edwardian suburb. These have been among the most successful and walkable of our urban environments.

In parallel, alternative ideas as to how streets should be designed and managed were being put forward that gave greater priority to pedestrians and cyclists, the quality of the environment, and the protection of towns, and a greater reliance on individuals’ responsibility for safety. This was embodied in the theory of risk compensation, which suggests that people adjust their behaviour in response to the perceived level of risk, taking greater care where they sense greater danger, and less care where they believe themselves to be safe. Some of these ideas date to the 1930. There were county surveyors who observed that road improvements would sometimes lead to increased accidents as people simply drove faster.

“Many more accidents occur on the wider, and should be, safer roads than upon the so-called dangerous ones. I have in some cases, widened turns to render them safer, but more accidents have ensued owing to motorists taking the turns much faster.”

H T Chapman, County Surveyor of Kent
September 1932

In terms of landmark publications, the ***Devon County Council Traffic Calming Guidelines***, published in 1991, was a key document presenting a survey of international best-practice.

Places Streets and Movement followed in 1998 as a supplement to DB32. A policy report ***Paving the Way*** was published in 2002 by CABE and the ODPM and finally in 2007 ***Manual for Streets*** was produced by the Department of Transport, Department for Communities and Local Government and the Welsh Assembly. It was supported by evidence contained in Transport Laboratory Report 661. *Manual for Streets* proposed a user hierarchy, where pedestrians are considered first, followed by cyclists, public transport, emergency and service vehicles, and lastly other motor traffic. It recommended the balancing of movement of place, and the importance of creating quality places. ***Manual for Streets II*** was published in 2010 by the Chartered Institution of Highways and Transportation, intended to fill the gap in design advice between 'Manual for Streets' and the design standards for trunk roads as set out in the ***Design Manual for Roads and Bridges*** (which is currently under revision). In the same year the Scottish Government published, as a policy statement, ***Designing Streets***.

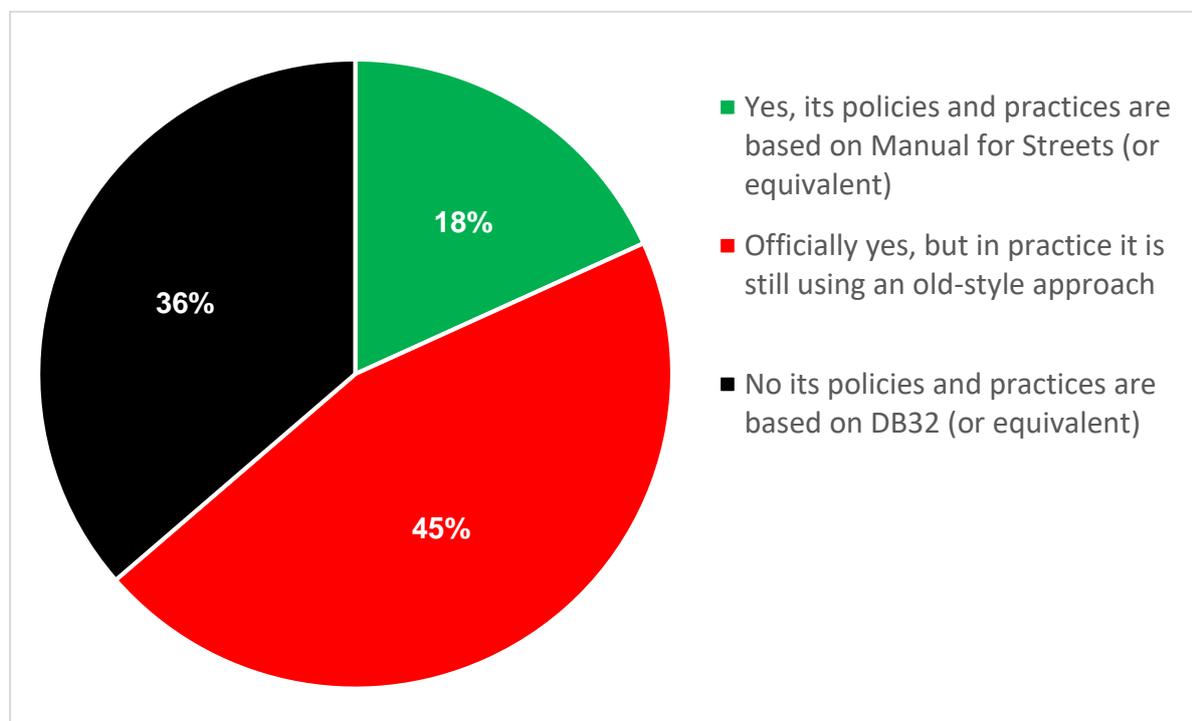
The approach to street design Roads in Urban Areas and DB32 reflected the needs and understanding of the time. The focus was on how to accommodate the increase in the ownership and use of motor vehicles. Then, vehicle braking systems were poor and unreliable. Lighting was dim compared with the brilliance of today's LEDs. Social concerns were about the legacy of Victorian slums, and a continuing need to develop new areas to replace housing lost during World War II. Environmental concerns revolved mainly around smog from coal fires. There were no formal requirements to provide for disabled and elderly people, and there was little recognition given to the needs or the perspective of women. The committee that produced the seminal Cook Report: *Design and Layout of Roads in Built-up Areas* was exclusively male.

Needs have changed, and this has been reflected in changes in government policy and guidance and in the creation of new statutory duties. It is unprofessional, and in some instances, negligent or unlawful to continue to apply the old standards.

1. Use of up to date street design guidance

Question:

“Has this authority withdrawn any guidance or standards based on Design Bulletin 32 (withdrawn by the DfT with the publication of Manual for Streets in 2007) (or if outside England - the equivalent guidance)”



No its policies and practices are based on DB32 (or equivalent)	36%
Officially yes, but in practice it is still using an old-style approach	45%
Yes, its policies and practices are based on Manual for Streets (or equivalent)	18%

Those councils that are still using guidance based on Design Bulletin 32 or its antecedents, such as Roads in Urban Areas (1966) will not have had due regard to the duties under the Equality Act 2010 or to other duties covering crime prevention, public health etc. They may not have had regard to their common law duty of care to road users, including children.

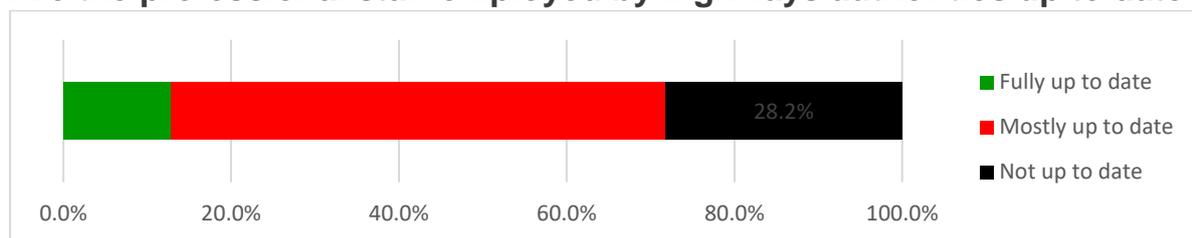
Highway authorities have powers delegated by Parliament to set their own street design standards. Street design practice in all councils should reflect current street design guidance and must reflect latest statutory duties. Consistency in guidance and advice between Local Planning Authorities and Highway Authorities was raised as an issue. There were reports of Design Guides developed by planning authorities which cite examples of positive historic developments and local character that cannot be delivered within applied highway standards. There were also reports of conflict within local authorities between the highways and planning officers – with one group keen to follow Manual for Streets design aspirations, but being overruled by the highways officers on DB32 'highways safety' grounds.

Respondents observed that some councils had published illustrated street design guidance showing latest good practice but had not revised the technical standards for street geometry and layout (often contained in an appendix) which were still based on Roads in Urban Areas or DB32. Generally, the detailed standards over-rule the illustrated guidance.

There was evident frustration where scheme applicants received approval from the highways planning team within a highway authority, only for it to be rejected by the highways adoptions team, necessitating design changes in order for the scheme to be adopted. This is an example of management failure within the highway authority that needlessly wastes resources.

There were also concerns that staff had had insufficient skills or training and were risk-averse.

Are the professional staff employed by highways authorities up to date?



Professional Institutions require their members to comply with a professional code of conduct. The codes generally require members to practice only in those areas where they are competent, competence including ensuring that their knowledge has remained up to date, and has covered all relevant developments. In order to comply with their professional code of conduct, therefore, professionals should be fully up to date, not merely, “mostly up to date”.

Some respondents reported that they were being dealt with by staff who were not professionally qualified. A separate survey on Design Skills in Local Authorities conducted for the Urban Design Group in 2017 by UCL identified significant skills shortages. There is no question that local authorities are, at the moment, facing difficulties.

Professional institutions and individuals have invested significant efforts in following through Manual for Streets. The Chartered Institution of Highways and Transportation produced and published Manual for Streets II and has organised numerous seminars and training events. The documents and evidence base have been freely available on the web for over a decade.

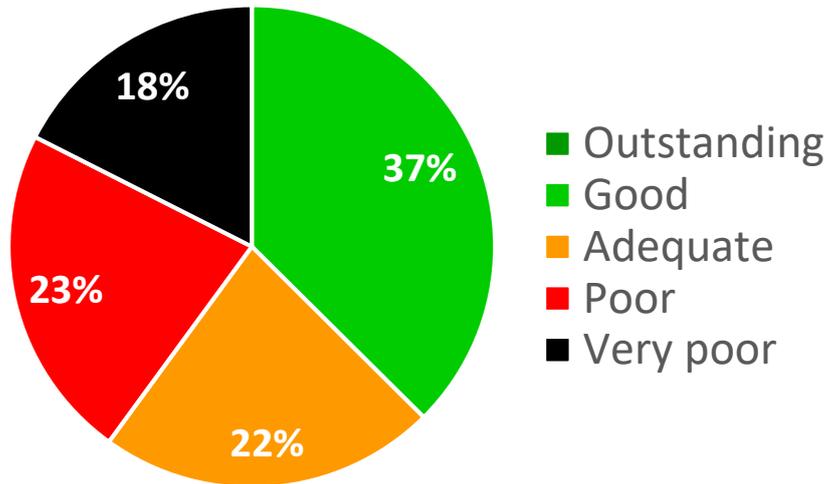
There are professional indemnity insurance implications: most policies require that the insured party acts in a way that will minimise the risk of claims. By undertaking work which is outside their competence and in breach of a professional code of conduct, professionals may find themselves lacking insurance cover.

As an employer, the authority must ensure that its staff or its contractors are competent to do the work required of them.

2. Street Design and Adoption: Overall Performance of Local Authorities

Question: What is your overall rating of this highway authority in relation to street design and adoption?

Respondents were asked to rate the highway authority from **Very Poor** to **Outstanding**



Over 40 percent of highway authorities were rated poor or very poor. None were rated outstanding.

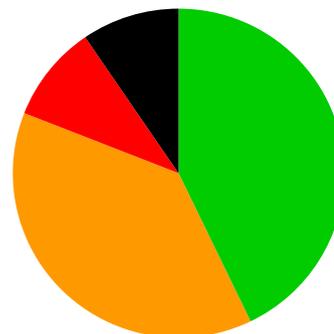
Unitary authorities were rated better than county authorities

The overall ratings given for county councils were worse than those for unitary authorities. The majority of greenfield development takes place in county areas. If it is designed according to the old-style of vehicle-prioritised rather than people-based street layouts, a legacy of car dependent lifestyles will lead to society facing long-term environmental and health costs.

County Councils



Unitary Authorities

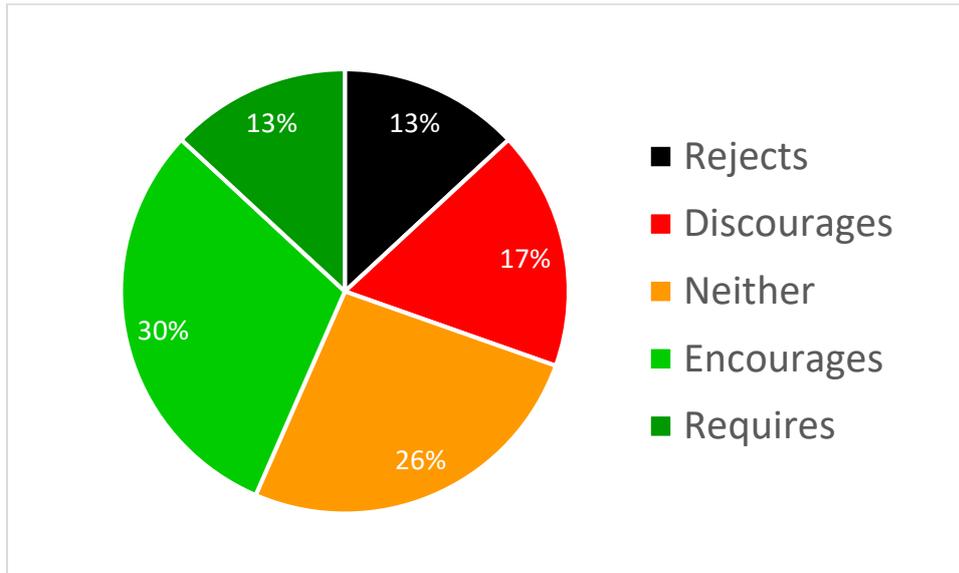


In the past, county highway authorities have played an important role in advancing highway and street design practice. There have been outstanding schemes created at county level. The challenge is to make these isolated schemes standard practice. It is of great important that county highway authorities have the resources and quality of political and professional leadership to continue this role.

3. Attitudes towards specific street design features and philosophies in Manual for Streets

A sample of 24 respondents gave follow-up information on details.

What is the attitude of the highway authority to main streets with frontage access (traffic flows up to 10,000 vehicles per day) ie with houses that face on to the street?



Respondents reported over half of authorities reviewed had not adopted the approach recommended in Manual for Streets. In effect traditional Edwardian, Victorian, Georgian and Medieval style towns and street layouts are banned.

Traditional towns have busy main streets lined with buildings. In the post war period, guidance (**eg Roads in Urban Areas 1966**) was produced that proposed the creation of distributor roads, to provide the safe and free-flowing movement for vehicles which should be kept away from residential areas. The guidance required that the distributor roads should have no frontage access, so that vehicles accessing the adjoining land would not interfere with the follow of traffic. Speed limits were recommended as 30, 40 and 50 mph. The guidance produced the layout of the new towns such as Basildon and Milton Keynes.

This guidance blocks the creation of traditional main streets. It leads to new housing development ringed with roads that take up large areas of land, are difficult for pedestrians and cyclists to cross, and are unattractive as walking and cycling routes. The effect can be to waste land and increase the rate of loss of countryside, and by discouraging walking and cycling, to increase car dependence and congestion.

The research conducted for Manual for Streets found that there were no safety concerns from allowing frontage access on streets at least up to 10,000 vehicles per day.

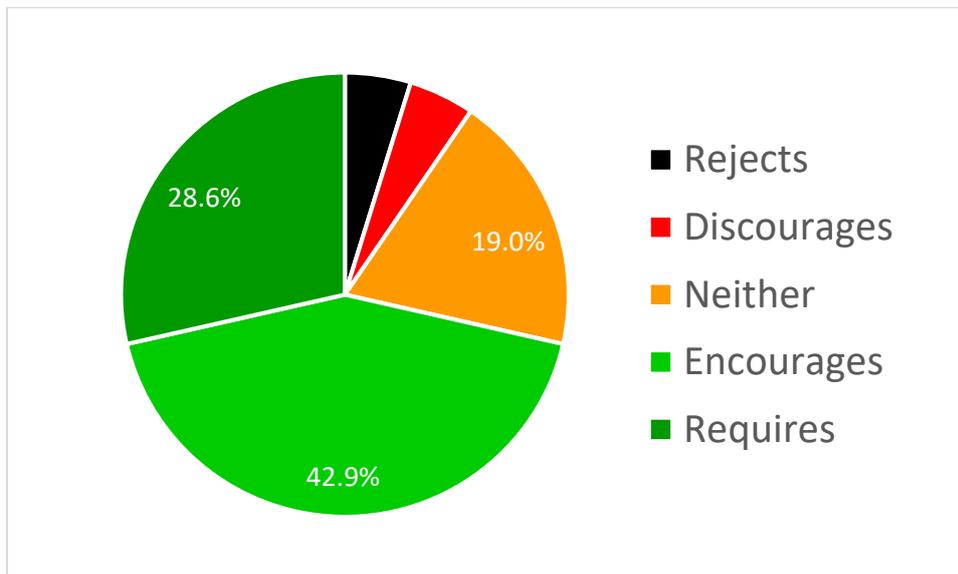
Permeable Street Layouts

Manual for Streets recommends that street networks should be well connected, and 'permeable', to encourage walking and cycling, and make places easier to navigate through.

From Manual for Streets Figure 4.4 (a) Dispersed car-dependent layout compared with (b) traditional, compact walkable layout



The survey respondents reported that the recommendation for permeable street layouts had been widely accepted, being encouraged or required by over 70 percent of highway authorities.



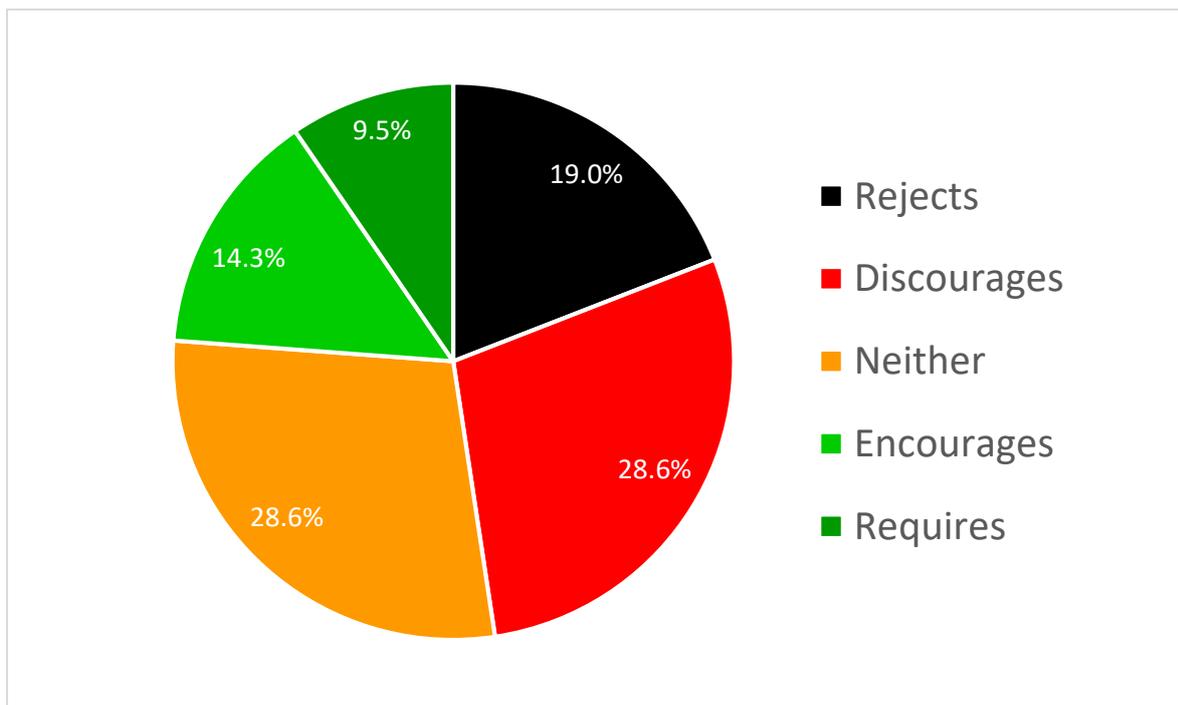
This is an area where further survey work is needed. It is possible for a housing estate or mixed-use estate to be well connected internally, but to be very poorly connected to adjoining urban areas and essential facilities such as secondary schools, main shopping areas, or railway stations, metro or light rail. Such developments are often found in open countryside, or as extensions to an existing urban area, and rely on a single main road to provide connections. The creation of additional links to the adjoining town, while important, can be difficult owing to land ownership issues and local objections. The consequence is that the people living in the new development, unless they have access to a car, have a difficult and potentially hazardous journey to the adjoining town.

Crossroads

Crossroads are a traditional feature of towns and highways generally. However, from the early 20th century highway engineering sought to eliminate conflict points between turning vehicles. Crossroads were seen as a particular problem and an alternative model was advanced of replacing a crossroads with two staggered T junctions reducing the conflict points and the cognitive load on the driver. On inter-urban roads where the higher speed of vehicles leads to high energy collisions which can lead to serious and fatal injuries, this makes a deal of sense. In urban areas, the loss of crossroads can lead to complex street layouts where direction-finding is difficult.

From a pedestrian perspective, crossroads are a very convenient and efficient option creating more direct pedestrian and walking routes. Manual for Streets outlines the benefits of crossroads, and many other junction configurations, and how any concerns about conflicts can be addressed.

The survey asked respondents to report on the attitude of individual highway authorities to crossroads:



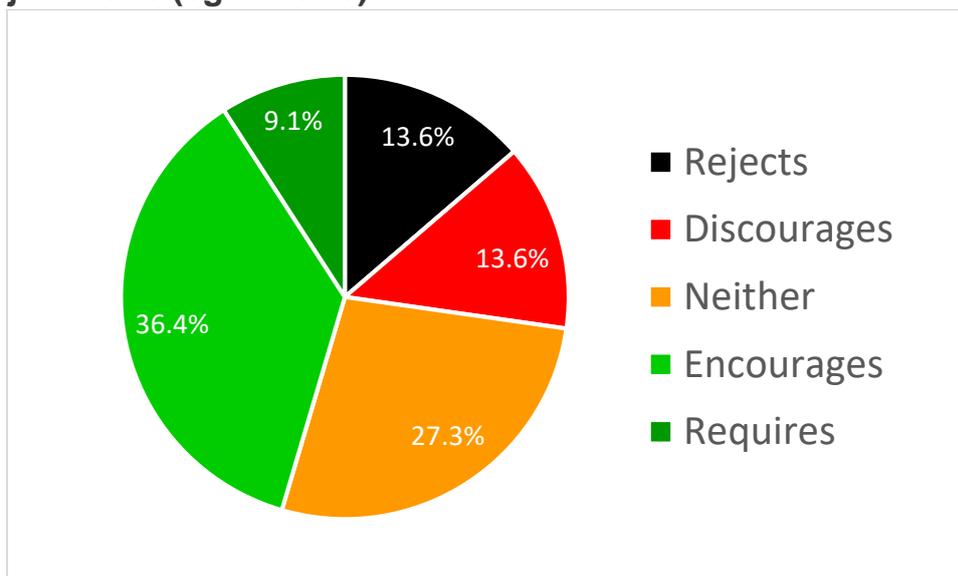
Nearly one half of highway authorities reported on in the survey had not adopted the approach outlined in Manual for Streets.

Side road corner radii

Streets created in the Victorian or Edwardian period were generally lined by footways and, where there was a junction or sideroad, radiused kerbs were provided with a radius equal to or less than the width of the footway (generally a 6ft radius or less). This practice gives pedestrians a short walk across the mouth of the junction and often between parallel kerbs, benefiting blind and partially sighted, and elderly people. The tight radii help to slow traffic making the turns, improving safety for pedestrians and cyclists, and make more efficient use of the land. *Manual for Streets* encourages junctions with small radius corners.

The 1960's philosophy favours vehicles over pedestrians and cyclists, requiring in new development sideroad entrances with large corner radii, such as 6 metres, 10.5 or even 15 metres on main streets, and 4 metres on lesser streets. This practice leads to increased speeds in turning vehicles, increases the time pedestrians spend crossing the carriageway where they are exposed to danger, places additional burdens on pedestrians who must look further behind to check for fast turning vehicles, something that is difficult for elderly people, and impossible for people who are blind or partially sighted. Main streets are important routes for pedestrians, cyclists and disabled people. The use of wide corner radii puts them to inconvenience and places them at risk.

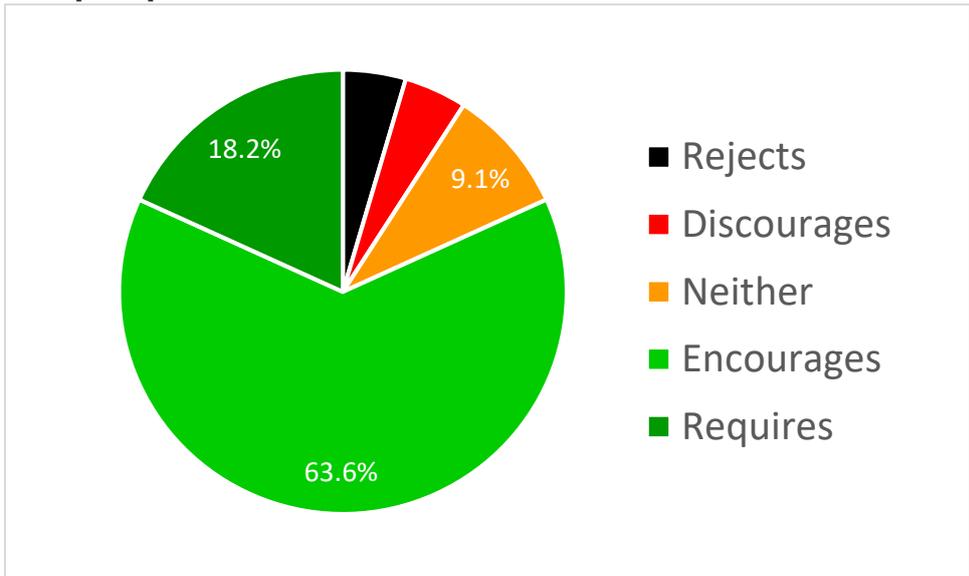
What is the highway authority's attitude to small radius corners at junctions (eg 1 metre)?



Over half of authorities reported on had ignored the advice in *Manual for Streets* on corner radii. In doing so they also ignore:

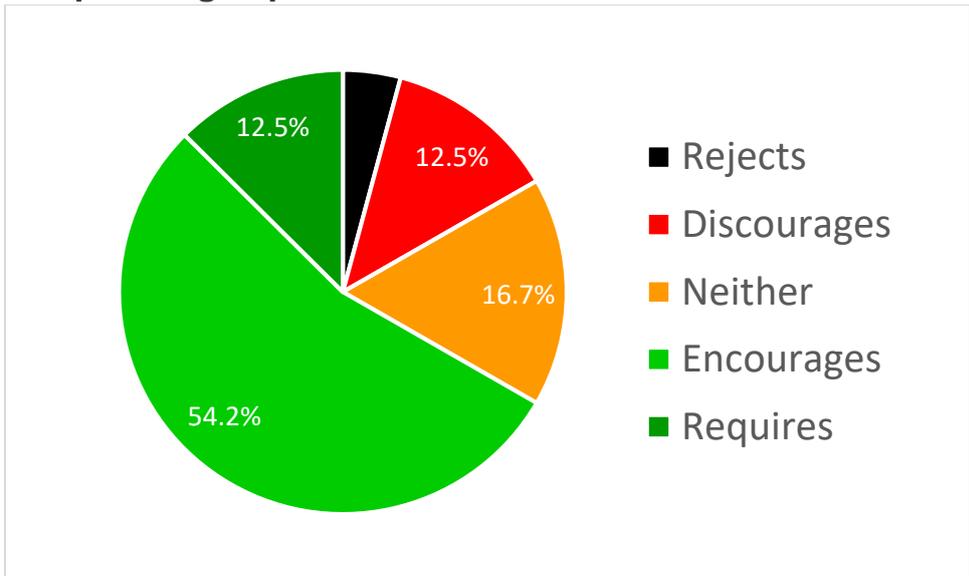
- the provisions in the *Planning Practice Guidance* on the hierarchy of users that places pedestrians first.
- the Public Sector Equality Duty in the Equality Act 2010 in relation to disabled and elderly people.
- the common law duty of care owed to highway users.

20mph speed limits



There is widespread support for 20mph limits.

20mph design speeds



Manual for Streets advocates the use of 20 mph design speed achieved through reduced carriageway widths and/or reduced forward visibility. Approximately 2/3rds of the highway authorities reported on are encouraging or requiring this approach.

It is unclear why any highway authority would reject or discourage 20mph design speeds given the common law duty of care to highway users. Nevertheless 1/8ths of highway authorities were reported as doing this. It might be difficult for a highway authority to defend an action in negligence under these policies.

Level Footways – not interrupted by vehicle crossovers

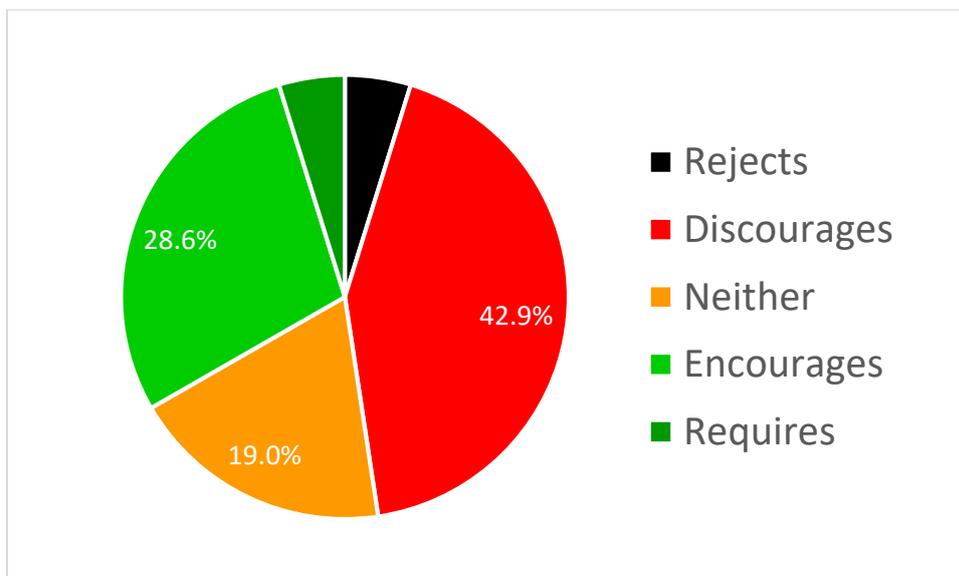
Footways on post 1950s residential streets are often interrupted by vehicle crossovers provided to enable vehicles to access private driveways.

Manual for Streets states:

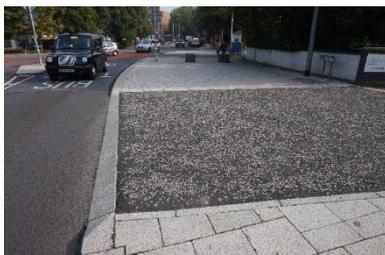
“Crossovers to private driveways are commonly constructed by ramping up from the carriageway over the whole width of the footway, simply because this is easier to construct. This is poor practice and creates inconvenient cross-falls for pedestrians. Excessive cross-fall causes problems for people pushing prams and can be particularly difficult to negotiate for people with a mobility impairment, including wheelchair users.

Manual for Streets recommends that the normal footway cross-fall should be maintained as far as practicable from the back of the footway (900 mm minimum).

The survey found that this recommendation is being disregarded by most highway authorities.



The underlying problem will be standard construction details that have yet to be updated, in line with Manual for Streets. The cost of doing this is negligible. The authorities who are still using pre-2007 construction details are likely to be in breach of the Public Sector Equality Duty under the Equality Act 2010, and are failing to implement the user hierarchies in the Planning Practice Guidance and Manual for Streets.



Some councils specify ramped kerbs, creating a neat, low cost solution, that should meet the needs of both drivers and pedestrians. This example is in Coventry, but other examples exist from the 1960s in many areas as far apart as Carlisle and Essex.

4. Other areas of performance

The full sample of respondents were asked to report on the attitudes of highway authorities towards important policy objectives, using the following categories:

- Non-negotiable requirement
- Important
- Neither important nor unimportant
- Unimportant
- Not accepted for adoption

Encouraging Healthy Lifestyles

The planning system (NPPF 2012) includes promoting healthy communities as one of the objectives of sustainable Development.

Local authorities have statutory duties regarding public health:

Health and Social Care Act 2012 S.12

Each local authority **must** take such steps as it considers appropriate for improving the health of the people in its area.

By giving public health responsibilities to local government it was the intention to open new opportunities for community engagement and to develop holistic solutions to health and wellbeing embracing the full range of local services (e.g. health, housing, leisure, planning, transport, employment and social care). Nearly all local authorities state in their corporate plans that they are committed to encouraging healthy and active lifestyles.

The way streets are designed and managed can make an important contribution to supporting active lifestyles. There have been major initiatives in some areas. Transport for London, with its Healthy Streets programme is an important example. However, despite the weight of these policies and duties, the respondents reported that a majority of highway authorities regarded promoting healthy lifestyles through street design as unimportant.

Non-negotiable requirement	7.5%
Important	27.5%
Neither important nor unimportant	30.0%
Unimportant	35.0%

Local authority Corporate Plan objectives are not being translated into action in the highways sector. Causes could include leadership and management failure within the local authority, including proposing and agreeing policies without the resources or commitment necessary to implement them.

Designing for Disabled and Elderly People

Disabled and Elderly People are covered by the Public Sector Equality Duty. They must always be considered in any decisions along with the other groups with protected characteristics under the Equality Act. A failure to do so renders any decisions challengeable by judicial review.

Public Sector Equality Duty – Section 149 Equality Act 2010

(1) A public authority must, in the exercise of its functions, have due regard to the need to—

(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;

(b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;

"**Due regard**" means a vigorous and open-minded inquiry before settling upon a course of action.

Ali vs Newham 2012 EWCH 2970

Highway authorities were reported to have the following attitudes towards designing for disabled and elderly people.

Non-negotiable requirement	15.4%
Important	38.5%
Neither important nor unimportant	28.2%
Unimportant	17.9%

The results suggest that nearly half of highway authorities could be operating an approach to street design and adoption that is in breach of the Equality Act Public Sector Equality Duty.

Prioritising large refuse collection vehicles

Nearly all highway authorities were reported as viewing the prioritising of large refuse collection vehicles as important or as a non-negotiable requirement.

Non-negotiable requirement	46.2%
Important	48.7%
Neither important nor unimportant	0.0%
Unimportant	5.1%

Designing for Disabled and Elderly People vs Prioritising large refuse collection vehicles

A comparison of the ratings given for prioritising large refuse collection vehicles as opposed to designing for disabled and elderly people showed that 60 percent of highway authorities were rated as viewing the prioritisation of large refuse collection vehicles above the importance of designing for disabled and elderly people.

Just one eighth of authorities were reported as viewing designing for disabled and elderly people as more important than prioritising large refuse collection vehicles.

Designing for disabled and elderly people more important	12.5%
Both equally important	27.5%
Prioritising large refuse collection vehicles more important	60.0%

Waste collection is a vital service for modern life, however it is one of many considerations, and should not be the over-riding design imperative. Both Manual for Streets and in England the Planning Practice Guidance set a user hierarchy that places disabled people, pedestrians and cyclists above other traffic. The Equality Act adds a statutory duty: S149 Public Sector Equality Duty. The waste collection service is itself subject to the Public Sector Equality Duty:

Public Sector Equality Duty – Section 149 Equality Act 2010

(2) A person who is not a public authority but who exercises public functions must, in the exercise of those functions, have due regard to the matters mentioned in subsection (1).

While some councils have applied an equality impact assessment to the waste collection service they have not considered the full range of impacts the vehicles have on others, such as the impact designing streets for large vehicles has on other user groups, or the impact of specifying waste collection systems that involve the intermittent obstruction of footways with bins and bags:

- Using the size of large waste collection vehicles as the basis for street design leads to the over-sizing of streets and side road entrances with the effect of increasing the speed of traffic and creating difficulties for people crossing streets and crossing the mouths of side roads as they walk along a street. Larger vehicles reduce waste collection costs, but at the cost of creating streets that are ill-suited to pedestrians, cyclists and specifically disabled and elderly people, and potentially dangerous. To do the latter would be unlawful under the Equality Act 2010.
- Obstruction of footways is an issue the RNIB has campaigned over including waste bins and bag collection systems, which cause inconvenience to blind and partially sighted people, and may for the purposes of the Highways Act constitute a material obstruction of the highway. Alternatives to bin collection systems are available, but require coordination between the highway authority and the waste collection authority.

There is no law that says that the needs of the waste collection service come above the safety of disabled and elderly people or people in general; however, this does not seem to have been understood by the majority of local authorities.

Development with a sense of place, designed for people

Thirty five percent of highway authorities were rated as viewing development with a sense of place, designed for people as important.

Non-negotiable requirement	10%
Important	25%
Neither important nor unimportant	30%
Unimportant	35%

Personal Security

Concerns over personal security affect the free movement of a large proportion of the population, with women and elderly people being especially affected. Councils are under a statutory duty regarding crime and disorder:

Crime and Disorder Act 1998

17 Duty to consider crime and disorder implications.

- (1) Without prejudice to any other obligation imposed on it, it shall be the duty of each authority to which this section applies to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent,
- (a) crime and disorder in its area (including anti-social and other behaviour adversely affecting the local environment); and
 - (b) the misuse of drugs, alcohol and other substances in its area; and
 - (c) re-offending in its area.

The respondents reported that over one half of authorities were indifferent to the need to consider personal security in the design of streets.

Non-negotiable requirement	3%
Important	40%
Neither important nor unimportant	31%
Unimportant	26%

Trees and landscaping

Trees have been linked to increased wellbeing and greater property values, as well as providing shade and helping to mitigate the effects of climate change. Less than 30 percent of highway authorities were rated as viewing trees and landscaping as important or a non-negotiable requirement.

Non-negotiable requirement	3%
Important	27%
Neither important nor unimportant	22%
Unimportant	38%
Not accepted for adoption	11%

Just over 70 percent of highway authorities were rated as viewing trees and landscaping as neither unimportant nor unimportant, unimportant.

The reduction of funding for highways maintenance has made many highway authorities reluctant to add to their maintenance costs. Some refuse to adopt trees, others require high commuted sums. Eliminating street trees then becomes an easy way to reduce the cost of new development. Unfortunately, the current funding regime appears to be providing a perverse incentive to make streets less attractive, and less liveable.

Incorporating SuDS – Sustainable Drainage Systems

Just over one third of highway authorities were reported as viewing SuDS as important or a non-negotiable requirement.

Non-negotiable requirement	11%
Important	26 %
Neither important nor unimportant	37%
Unimportant	21%
Not accepted for adoption	5%

A recent review of the application and effectiveness of planning policy for Sustainable Drainage Systems (SuDS) conducted for the Ministry for Housing, Communities and Local Government states:

“The main concern (of Lead Local Flood Authorities) noted was of a lack of applications where SuDS had been incorporated into developments from the master planning stage and a subsequent lack of any detailed information or considerations of surface water drainage at an early stage of development.”