DESIGNING STREETS FOR PEOPLE

HOW HIGHWAYS AND TRANSPORTATION PROFESSIONALS CAN HELP MAKE BETTER PLACES

CABE

THE INSTITUTION OF HIGHWAYS & TRANSPORTATION

ENGLISH HERITAGE

FOREWORD

Streets for people are streets that work for a range of users and uses. CABE believes that highways and transportation professionals have the opportunity to provide leadership on this agenda.

CABE's housing audit and their work on Building for Life tells us that highway dominance has a major, and in many cases negative, impact on the quality of neighbourhoods across England. This often happens when highways issues are negotiated in isolation from urban design principles. The result is that quality is unwittingly sacrificed to meet individual highway requirements.

Good urban design is not only, or even mainly, about how places look. It is about creating great places and spaces that work for the whole community. Great places and spaces spell success. They attract investment, deliver regeneration and new jobs, encourage communities and mobility, they help reduce crime.

We recognise a strong skills base is necessary to deliver successful places and spaces. This means access to urban designers. It also means everyone working in or on our streets should have a grasp of the principles behind good urban design. The 2003 IHT members' survey, which revealed that 85% of respondents had received no formal urban design training whatsoever, illustrates the scale of the challenge that we face.

The Streets for People series of workshops was funded by CABE and English Heritage and delivered by the IHT between 2004 and 2006. The series aimed to inspire and empower professionals to work towards achieving great places, as well as to expand the numbers of highways and transportation professionals with a working knowledge of urban design principles.

This report continues the work by spreading the key lessons from the Streets for People workshops even wider. It introduces seven key urban design principles and outlines how to overcome some common barriers. It underlines CABE's belief that individual acts of leadership at all levels can help to deliver streets for people.

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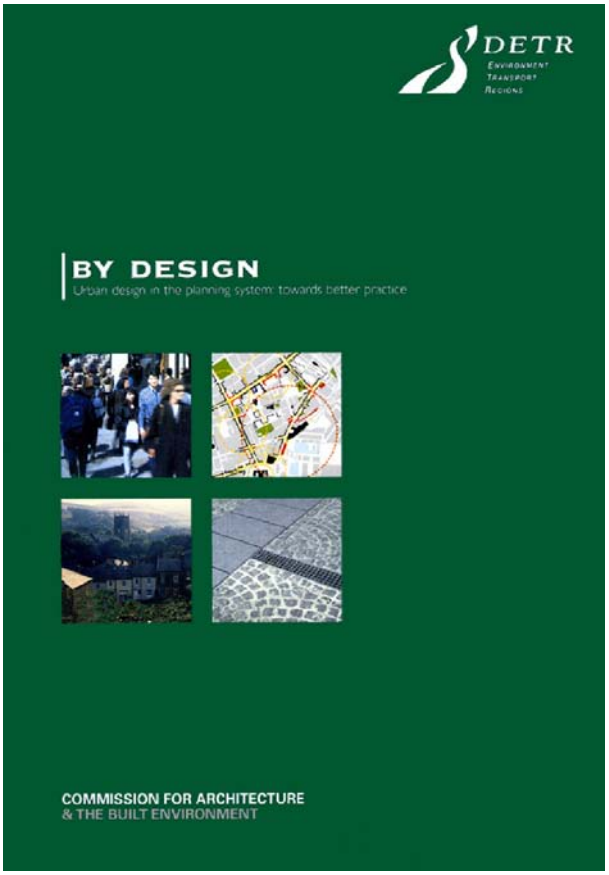
INTRODUCTION



BACKGROUND

This publication summarises the inputs to and outputs from the series of 25 'Streets for People' training days that were held in various towns and cities throughout England from 2004 to 2006. These urban design workshops for highways and transportation professionals were sponsored by CABE and English Heritage, and managed by the Institution of Highways and Transportation (IHT).

The impetus for delivering this training programme came from Delivering the Skills We Need (CABE 2000) and the results of a survey of its members that the IHT undertook in 2003. This survey asked highways and transportation professionals what they felt was needed to improve the urban design quality of their outputs. Over half the respondents cited a lack of training in urban design, and a lack of appropriate urban design skills and expertise. 85% of respondents said that they had received no formal urban design training whatsoever.

The Streets for People workshops comprised four linked modules, each delivered by a different trainer and each covering a different aspect of public realm design:

- The Principles of Urban Design (Rob Cowan, Urban Design Group)
- Overcoming Barriers to Good Urban Design (John Dales, Urban Initiatives)
- Practical Design Issues and Inspired Design (Peter Piet, Project Centre)
- Details and Practicalities: what the regulations actually say (Colin J Davis, CJDA)

This publication flows primarily from the experience gained from the first two of these modules. It is divided into two sections:

- an assessment of the key issues that face highways and transportation professionals in respect of each of the seven objectives of urban design set out in By Design – Urban design in the planning system: towards better practice (DETR/CABE, 2000); and
- a summary of the main barriers to achieving these objectives cited by workshop delegates, together with some recommendations as to how these might best be overcome.

TRANSPORT AND URBAN DESIGN

One common error, which is by no means the sole province of highways and transportation professionals, is to consider urban design as being concerned with what makes the public realm 'look nice'. This misconception means, for example, that the urban design quality of a highways scheme is often judged according to the presence or otherwise of street furniture in a contemporary style. But urban design is largely objective. By Design begins by remarking that successful streets, spaces, villages, towns and cities tend to have certain observable characteristics in common. It analyses these factors to produce a list of principles or objectives of urban design that, overlapping and reinforcing each other, are all about what it takes to make successful places. These are:

- Character (a place with its own identity).
- Continuity and enclosure (a place where public and private spaces are clearly distinguished).
- Quality of the public realm (a place with attractive and successful outdoor areas).
- Ease of movement (a place that is easy to get to and move through).
- Legibility (a place that has a clear image and is easy to understand).
- Adaptability (a place that can change easily).
- Diversity (a place with variety and choice).

While ease of movement is probably the objective that resonates most strongly for those who work in the field of transport, all seven qualities can affect and be affected by the work of highways and transportation professionals. In Part 1 of this document, all the objectives are considered in turn from a transport perspective. The intention is to encourage a better understanding of the contribution that transport practitioners can make, and the lessons they can learn, in respect of each. Illustrations of good and bad practice are provided.

Part 2 focuses on how to overcome the seven barriers to good urban design that were most frequently cited by participants at the workshops. The nature of each barrier is briefly considered, and recommendations for action are set out.

Throughout, the purpose is to promote the understanding of urban design – the process of making and maintaining better places – as something all highways, transportation and other built environment professionals are involved in. Too often, however, the relatively narrow focus of different professional disciplines means that we focus too much on specific problems and too little on places. We need to broaden our perspective, developing a better understanding of the wider urban context within which we work and upon which our work can have impacts we have previously failed to appreciate.

Good or bad urban design can be appreciated by anyone, whether or not they would actually use such terms to describe it. We should therefore think beyond our purely professional horizons and encompass the perspective of the people (like us) who use the public realm that we design and build.

To be better urban designers, highways and transportation professionals must go beyond merely 'doing our bit'. Whatever our individual role, whatever our particular expertise, and whatever the specific problem we have been tasked with solving, we should contribute to making places where people want to live, work and play.

1 UNDERSTANDING URBAN DESIGN

It's Gloucester: but the poles, bollards, signs, guard-rails and CCTV can be found almost anywhere

1.1 CHARACTER

This objective is: 'To promote character in townscape and landscape by responding to and reinforcing locally distinctive patterns of development, landscape and culture'.

Ask yourself: What's special about this place?

In his book Notes from a Small Island, travel writer Bill Bryson wrote that '(English) towns generally look more handsome from the top deck of a bus'. This is because, at street level, one town looks much like any other ('lots of building society offices and chain stores, all with big plate-glass windows'). But above, the original character of most buildings is there to be appreciated.

In the decade since Bryson's book was published, the phrase 'clone town' has crept into common usage, an expression of the concern that so many towns, high streets, places are pretty much the same as many others. What we value highly of the places we like is some sense of uniqueness, of difference, of individual character. While a certain amount of familiarity can be comforting, and wholly alien surroundings unsettling, when we praise somewhere we've visited, or even the place where we live, we never do so by telling our audience: 'The great thing is, it's just like everywhere else'.

By Design makes the same point. 'The best places are memorable, with a character which people can appreciate easily'. However, it can be difficult to envisage exactly what role transport practitioners have in making a positive contribution to local distinctiveness. After all, one signal head looks pretty much like any other, tarmac is tarmac, and the Traffic Signs Manual simply does not allow for much in the way of idiosyncrasy. Architects and others may have significant opportunities for making an active, dramatic impact on the townscape, but us?

Consider the matter of positive or negative impact. The A650 Bingley Bypass may have won the Prime Minister's Better Public Building Award for 2004, but the fact that it was the first transport project to do so suggests that transport infrastructure is not usually associated with beauty or with having an attractive character in its own right. And when it is, such as with new public transport interchanges or bridges, the glory is nearly always the architect's. As regards character, the primary challenge facing transport practitioners is to minimise the negative impacts of the work they do.

There are perhaps two principal ways in which that work can have a significant negative impact on the character of a place. The first is through major transport infrastructure that jars with, and in some cases obliterates, the local built form or natural landscape. The second is through the profusion of much smaller-scale interventions that tend to make all streets look the same.

There are numerous examples around the country of highways that, whatever their other merits, have destroyed much of the character of the town or city they are part of. Much of the urban road-building that took place in the 1960s and 70s falls into this category. We are all sadly familiar with urban centres that can only be approached by crossing ring or relief roads that contribute nothing positive to the built environment, obscure views of valuable buildings, and were built at the cost of the destruction of swathes of townscape.

English Heritage's 'Streets for All' campaign is one response to the concern that the nation's streets are increasingly cluttered with a proliferation of traffic signs, bins, bollards, guard-rails and street furniture that make the streetscape of many towns both unsightly and lacking in character. A series of regional streetscape manuals published by English Heritage sets out principles of good practice for street management, showing how to reduce clutter, co-ordinate design and reinforce local character.

The Department for Transport is also concerned about the adverse impacts of too much standard highway and streetscape kit on the visual environment. It has consequently commissioned research into 'Reducing the impact of traffic management on the streetscene'.

The Lanes in Brighton - a place full of character

Edinburgh's Victoria Street - one you remember

1.2 CONTINUITY AND ENCLOSURE

This objective is: 'To promote the continuity of street frontages and the enclosure of space by development which clearly defines private and public areas'.

Ask yourself: Are streets and spaces well defined?

The concept of continuity and enclosure is perhaps the most difficult of the seven objectives to describe. Yet we all value the clear definition of the private and public realm; we all like to know whether we're supposed to be where we are; and we all appreciate the qualities of a green lined by buildings (including, we hope, a pub), compared with an open patch of grass stuck out on the edge of town.

By Design states that development either contributes to making the urban fabric coherent or undermines it. It also comments that too many places have been blighted by development that ignores local urban structure and creates bits of leftover space that contribute nothing to the town or city.

This matter of leftover bits of land is something with which highway designers, in particular, are familiar. They are the almost inevitable result of building new roads along corridors that have been reserved (often for years) and necessarily defined on the basis of land ownership. Unsurprisingly, the end-state highway does not need and cannot use all of the reserved corridor. This results in odd shapes of redundant land being isolated between the back edge of the footway and the corridor's 'red line'. Leftover bits of land are also commonly created, with far less excuse, by the layout of new residential roads.

The graceful, continuous frontage of Grey Street in Newcastle

Often the only productive use to which owners feel that leftover parcels of land can be put is as pockets of surface car parking. The negative impact of such parking on the streetscape is also felt in the classic instance of positioning buildings (especially large office blocks and superstores) behind seas of surface car parking. Large buildings with clear fronts and backs often compound the problem by having the rear of the site laid out as service yards that present a different, but still very poor, aspect to the street on that side.

Within shopping areas, service and private parking yards that are not effectively enclosed within surrounding buildings that face outwards can be confusing to people who are uncertain as to whether or not these areas are available for public access and, if so, where they might lead. Streets, spaces and buildings should generally be laid out so that people can readily understand whether or not they are in the public or private realm.

Sadly, the design of some highways can discourage continuity and enclosure. In the case of conventional town centre relief roads, for example, their purpose was/is to allow much greater pedestrian priority in the centre. This led to their design being based on attractiveness to vehicular movement, with little or no consideration given to their attractiveness for pedestrians, or to fronting the road with development. Such roads tend to be lined solely with uses – such as car parks, car show rooms, big-box retail and service yards – that are intended to be accessed only by vehicles but which generally have a negative impact on the built environment.

Leftover land adjacent to a new road in Kettering: fit only for a few cars, a bit of grass and a few daffs

It's continuous and it encloses, but this wall in Ipswich makes for a lifeless and intimidating road

At a more local scale, residential streets commonly suffer where the original front walls and/or hedges of individual houses are demolished to allow cars to be parked on the paved-over front garden. Leaving aside the matter of whether or not the cars actually fit within the curtilage of the property, and of conflicts between pedestrian movement and cars crossing the footway, this practice can destroy the continuity of the urban fabric and make the streetscape less successful.

Of course, there is enclosure and enclosure. Buildings with live edges, such as shopfronts, forecourt seating, doors directly on to the street, or residential upper floors with overlooking windows, enable people to keep an eye on public streets and spaces, making them feel safer. By contrast, streets lined with walls, fences or other blank frontages, though technically well-defined, create a dismal and sometimes hostile street environment. Such features fail to meet the objective of an attractive public realm.

People feel comfortable in well-contained squares, like St. Mary's in York

The public realm disfigured by traffic and pedestrian management clutter

Kensington High Street made more attractive, and safer, by recent streetscape improvements

1.3 QUALITY OF THE PUBLIC REALM

This objective is: 'To promote public spaces and routes that are attractive, safe, uncluttered and work effectively for all in society, including disabled and elderly people'.

Ask yourself: Is this place welcoming and attractive?

Like character and (to a certain extent) legibility, the objective of creating a high quality public realm concerns the visual attractiveness of a place. But it encompasses much more. A high-quality public realm not only looks attractive but it also functions well. We know when public realm designers have got it right because we like, want to stay in, feel safe in, and can travel easily through such places. A high-quality public realm is both attractive and convivial.

In this regard, it is unhelpful that most highways and transportation professionals tend not to consider themselves as designers of the public realm. Yet we are, without a shadow of a doubt. Public realm design is by no means the sole province of landscape architects or public artists. After all, since highways are (with very few exceptions) part of the public realm, whether your particular focus is on the carriageway or the footway, on private vehicles, buses, pedestrians or cyclists, what you do has an influence on the design and use of the public realm. The same goes for those whose work entails construction and maintenance, rather than design.

By Design makes this plain in saying that 'the success of the public realm depends on the arrangement of its paving, planting, lighting, orientation, shelter, signage, street furniture, and the way it is overlooked, as well as the routes which pass through it, and the uses in and next to it'. By Design also comments that streets and junctions designed as public spaces (rather than just traffic facilities) are likely to be more attractive to, and convenient for, all users.

Most highways and transport professionals, while agreeing with this statement, find it extremely difficult actually to implement such designs. This is generally for two reasons. First, the training, experience, custom and practice of most of those who have a role in the design of streets and junctions has focused on providing for vehicles before other users. Second, successfully accommodating the varied and often conflicting requirements of different users of the public highway in any given location is a highly complex task.

This subway in Hemel Hempstead typifies the hostile environments we have no right to create

Victoria Square in Birmingham - a focal point for people

Nevertheless, we should no longer feel ourselves at liberty to create, directly or otherwise, areas of the public realm that are unpleasant for, and even hostile to, pedestrians, cyclists and other users. Classic examples of this are the pedestrian subways that shame so many of our towns and cities.

To deliver a better public realm, we need the skill, the confidence and the desire to ensure that the requirements of all users are properly considered in our designs. These days, almost every local authority transport policy statement contains a list proclaiming that pedestrians are its top priority and private motor vehicles its lowest priority mode. Yet we know that this is not the basis on which we actually design.

All too often, the phrase 'it won't work' is used when it is proposed, for example, that new or improved pedestrian crossing facilities should be incorporated within a signalised junction. The clear understanding is that to increase pedestrian priority will cause too detrimental an impact on traffic congestion. We need to start thinking of what doesn't work for our alleged priority users and to design accordingly.

The public realm is commonly rendered uninspiring or worse by the paraphernalia associated with the provision of easy movement for vehicles, and the control of pedestrian and other movements. How many of the signs, lines, signals, poles, splitter islands, guard-railing, control boxes and bollards that we observe, that get in our way, that make us go where we don't want to go, are actually essential?

There are, of course, many other aspects of the work of transport practitioners that relate directly to the public realm. These include the provision of access for all (level surfaces and ramps), street lighting, the design and location of street benches and cycle racks, the control of on-street waiting and loading, and the provision of parking, to name but a few. Highways and transportation professionals also influence other aspects of the public realm, such as the provision, or otherwise, of street trees. We need to ensure that our work is undertaken with a broader perspective and less of a simple problem-solving mentality.

1.4
EASE OF MOVEMENT

This objective is: 'To promote accessibility and local permeability by making places that connect with each other and are easy to move through, putting people before traffic and integrating land uses and transport'.

Ask yourself: Can I get about conveniently by any mode?

With good reason, highways and transportation professionals have been accused in the past of considering ease of movement by private motor vehicles far above all other modes, leaving buses, pedestrians and cyclists to make do with what's left over. But the answer is not simply to focus on a different single mode. Better places cannot be achieved by designing for whichever user group is currently in vogue or happens to be within your particular professional remit.

The challenge is to strike the right balance for any given location, and not to avoid the complexity inherent in urban environments. For example, there may be a pressing case for introducing bus priority in a particular street, but if this is achieved at the expense of other priorities, such as for safe and convenient pedestrian movement, the end result may be counter-productive in the round. Much of the workload of built environment professionals is dealing with problems created by someone else's so-called 'solutions'.

According to By Design, 'the convenience, safety and comfort with which people go to and pass through buildings, places and spaces play a large part in determining how successful a place will be. Streets are more than just traffic channels for vehicles, and should offer a safe and attractive environment for all'. Streets are where the challenges of providing for urban movement are at their most complex, but where transport practitioners and others have tended to respond by trying to simplify matters. This has rarely, if ever, been successful from the perspective of place-making, as opposed to problem-solving.

In 1946, the Ministry of War Transport published Design and Layout of Roads in Built-up Areas. This was superseded in 1966 by the Ministry of Transport's Roads in Urban Areas. Together, these documents established and promoted an orthodox view that 'traffic segregation should be the keynote of modern road design'. Segregation, of course, is the practice of avoiding complexity. As 1963's Traffic in Towns (HMSO, 1963) made plain, segregation was the best idea that professionals of the time had for addressing their belief that allowing pedestrians and vehicles to mix in the same street would inevitably lead to a road safety crisis.

Four pedestrian phases to cross one arm of this road in Blackburn: ease of movement for whom?

The motives may have been sound, but segregation has often delivered one of two malfunctioning urban environments: high streets where the movement of pedestrians has been subjugated by the movement of vehicles (with guard-railing and subways featuring heavily); or pedestrianised shopping streets that may work fine while the shops are open but become devoid of life at other times.

A more balanced approach to providing for movement in complex urban streets is now being pioneered. While the successful changes in High Street Kensington, London, have become something of a cause celèbre, the Department for Transport's sponsoring of the Mixed Priority Routes (MPR) Project has promoted new approaches to the design of high streets in ten locations around England. These and other initiatives in no way promote a more democratic street environment above a safer one. The MPR Project was specifically focused on innovation in road safety, while the two years since the introduction of the High Street Kensington scheme have seen an encouraging improvement in the accident record, even though this was not the primary purpose of the works.

Ease of movement is not solely a matter of balancing the needs of all modes, however. It also encompasses the importance of designing the fabric of towns and cities to promote good connections, and of deploying land uses to make the most of transport assets and to make improvement of these assets more likely. Smaller urban blocks, radial highway patterns, good interchanges, the careful location of car parks, and relating development to public transport accessibility are all key tools in making it easier to move around urban areas.

We need to get our balance of priorities right for every situation or place

The design of this footway in Gants Hill makes it very difficult to move along

An innovative semi-formal pedestrian crossing in Hull

This Grimsby landmark makes it very easy to orientate yourself, almost wherever you are in the town

1.5 LEGIBILITY

This objective is: 'To promote legibility through development that provides recognisable routes, intersections and landmarks to help people find their way around'.

Ask yourself: Is it easy to work out where to go?

A town could have fantastic networks for movement by all modes and yet still be very difficult to get to, from and around. This happens where users (and potential users) simply don't know how to access those networks. In the field of transport, perhaps the most common example of a failure of legibility is the very poor or non-existent information provided about local bus services in so many towns. The services themselves may be excellent, but patronage will suffer if easy-to-understand maps and timetables are not available.

Legibility is all about people finding their way. Places that are easy to understand as a result of their form, layout and signage are likely both to function well, and be pleasant to live in and visit. Landmarks, gateways and focal points all help, as do clear routes between them. We tend to find towns and cities with prominent buildings and a clear pattern and hierarchy of streets more welcoming than those where the built environment gives very few clues as to where we are or might want to go.

That said, By Design correctly points out that some places draw their charm from their lack of clear routes. This character and individuality, perhaps especially prized by visitors, is not necessarily achieved at the expense of legibility, however. The pattern of narrow streets in the older parts of some towns may seem maze-like for the uninitiated, but can nevertheless contribute to a strong sense of place which, at the whole-town scale, can actually aid wayfinding.

However good your buses, people need to know where to catch them, where they go and when

In most towns and cities any historic gateways no longer exist, other than perhaps as street names. These used to make very clear to all when you were entering (or leaving) a place, but now it can be much more difficult to know whether you have got to where you are going. Often this is because the clear definition provided by traditional gates and built form has been replaced by the very poor definition that can arise from modern junction layouts, especially those that have been achieved at the expense of the demolition of buildings that once helped define arrival points.

The size or complexity of a junction may give us a clue to its importance in traffic terms, but not to its role as a gateway. All too often, visitors approaching an unfamiliar place by car will first encounter a large but anonymous junction on the town/city centre relief road that provides no help in orienting themselves and may even confuse. The visitor may sense that they have nearly arrived, and tall buildings ahead may beckon, but the 'city centre' is signed to one side or another. They may find themselves drawn in to a one-way system that takes them through a series of uninspiring streets, and only offers exits to large car parks that all look alike or signs for 'all through traffic'.

Signs, whether intended for drivers, cyclists or pedestrians to follow, are of course very useful for wayfinding. However, a profusion of signs can be more confusing than helpful, and can lead to unnecessary visual and physical clutter. Some signs are rendered redundant by the fact that the built environment provides all the guidance people need. Conversely, too many signs are required simply because the buildings, streets and spaces no longer do provide the guidance they ought.

With signage, more can often be less

A point worth considering is whether or not signs to the 'town centre' or 'city centre' should ever really be needed. Changes in building heights and density generally can provide all the guidance that is needed to find higher-order destinations like these. Prominent buildings and other landmarks can also help at this level, while also being useful for finding specific locations: 'follow that spire till you get to the church, then turn right and you'll see the restaurant next to the old town hall'.

Although transport practitioners are not often involved in creating landmarks and gateways, we have in the past been at least partly responsible for their loss. More frequently, however, we continue to design junctions that have no sense of place and movement systems that either ignore, or even weaken, the strong legibility that arises from a clear hierarchy of two-way streets and focal spaces.

1.6 ADAPTABILITY

This objective is: 'To promote adaptability through development that can respond to changing social, technological and economic conditions'.

Ask yourself: How 'future-proof' is this scheme?

If, as By Design says, successful places prosper in changing circumstances and 'avoid the destructive trauma of large-scale blight and dereliction', we must judge as failures those towns and cities that are, and have been for many years, dominated by major highway infrastructure.

For all the benefits they may have brought for some, and for all that they might have seemed a good idea at the time, the majority of the urban relief and ring roads built in the 1960s and 70s (and some much more recently) were built with little thought for how the town or city might change in the future. Many of those places are continuing to pay the price: in terms of severance, social exclusion, depressed land values, a hostile built environment and poor image. They do so because it has (at least to date) proved too costly or too difficult to modify these highways so as to reduce or remove this blight.

Urban flyovers and underpasses, for example, can be only what they are: they are simply not adaptable. Their advantages for the movement of vehicular traffic must be set against the disadvantages they impose on movement on foot and by bike, against the creation of an unsafe, unattractive public realm, and against the fostering of seemingly permanent 'temporary' surface car parks, and large, low-value buildings with long stretches of blank walls. As recent experience at Masshouse in Birmingham has made plain at great expense, the only way grade-separated highways can be modified into more flexible urban roads is to demolish them, or fill them in, and start again.

Coventry's ring road: it may be great for traffic but it blights the city centre's development

East Ham High Street - yesterday a two lane highway, today a one way pedestrain priority street, tomorrow...?

Masshouse in Birmingham - showing what it takes to 'adapt' major highway infrastructure

Church Street in Blackburn: a very expensive and highly inflexible pedestrianisation scheme

By contrast, roads built at surface level, on however grand a scale, at least have a chance of being adapted should this be required. It may not be cheap, it may not be easy, and it may take a long time, but carriageway can be converted to footway; subways can be filled in; surface and signalised crossings can be introduced; and buildings alongside can change use or otherwise adapt themselves. Such roads can be converted into streets, and could in due course revert, should conditions change again.

It's a cliché, but it is truer of dynamic urban areas than almost anywhere else: 'constant change is here to stay'. Whenever we design or build anything, we should do so only after having paid some attention to the fact that contemporary demands, pressures, aspirations and techniques will have changed, perhaps significantly, in just five or ten years' time. We may not have a crystal ball that tells us what those changes will be, but we can foresee what schemes or measures will prove difficult or even impossible to adapt.

It is by no means only major highways projects that struggle in terms of being future-proof. Relatively small schemes can be hard to adapt if the costs of doing so cannot be met.

Even if the money can be found, the inefficiency of replacing, rather than modifying, implies significant wastage. There are also, rightly, likely to be major political ramifications if public funds are seen to be spent on a project that undoes or supersedes a scheme installed relatively recently. Whether the initial build cost is £100,000 or £100m, a flexible scheme design makes very good sense.

Many pedestrianisation schemes exemplify the problems associated with inflexibility. While such schemes can make for thriving shopping environments during the day, their inability to accommodate vehicular movement at other times can render them unwelcoming environments when the shops close. By Design raises a similar concern in relation to the importance of building highways to adoptable standards. Doing so will avoid the need for inflexible estate management agreements and allow a greater variety of uses to be developed over time.

Highways and transportation professionals are already well known for looking to the future in the context of demand forecasting. We need to become just as famous for considering how what we do will assist or constrain change in our towns and cities as time goes by.

Elevated highways, like this in Birmingham, are hostile to activity-generating development

This multi-storey car park in Ipswich creates a setting that is only attractive to more parking...

...while this one in Liverpool is hardly noticeable and has shops and restaurants at ground floor level

1.7 DIVERSITY

This objective is: 'To promote diversity and choice through a mix of compatible developments and uses that work together to create viable places that respond to local needs'.

Ask yourself: Is there lots going on here?

We're becoming increasingly used to the phrase 'mixed-use development', perhaps to the extent that we risk thinking of it as a new land use class. Rather, it represents a challenge to ensure that towns and cities have lots to offer, at different times, and to avoid creating places dominated by single uses or user groups. Even if we recognise this challenge, we may wonder what the particular contribution of transport practitioners may be. After all, shouldn't transport serve rather than determine land use?

We have already seen, however, that transport and related interventions can influence the vitality of towns. The design and management of pedestrianisation schemes, for example, can have a significant influence on whether the street in question is a welcoming and active place at night as well as during the day; roads that are designed primarily with the passage of vehicular traffic in mind are often hostile to active frontage development and pedestrian movement; and a lack of attention to making the public realm welcoming and attractive can likewise have a negative impact on the uses that take place there.

It is important not only to encourage a diversity of uses in a place, but also a diversity of uses at different times. Some town centres, and even a few city centres, offer a wide range of attractions and generate a large number of different types of activity during the day and yet still manage to be places that are dead at night. By Design reminds us that vital places usually have a mix of uses that involve different people using different parts of a place or space at different times of the day, as well as different uses happening in different parts of a place or space at the same time.

Cheltenham town centre: a pedestrianised street with little activity when the shops are shut

Dynamic traffic management can help to encourage a greater range of activities at different times by enabling less rigid access controls. A common form of dynamic traffic management is the time-controlled service access that is a characteristic of many shopping centres. But this generally supports only the predominant retail use. Some pedestrianised areas, though, are designed and controlled to permit and general vehicular access outside of the peak shopping periods. This can encourage restaurants and other leisure uses to locate in those same streets, giving them life well into the evening. It is important to be clear, however, that the simple introduction of vehicular traffic into an otherwise inactive street should not in its own right be regarded as a contribution to diversity.

Another aspect of diversity concerns the encouragement that good access to public transport can give to high densities and hence intensive activity. Transport development areas (TDAs) can sustain a greater amount of development per unit area of land than comparable areas which have much poorer accessibility, so TDAs clearly present the opportunity for a greater range of development types in the vicinity. The number of people who are able to live or work in or near any given location depends in part on how easy it is travel to and from that location by a choice of modes. The greater that number of people, the greater the likelihood of other, non-residential and non-employment land uses being attracted to the area. The main transport termini and interchanges in urban areas tend to be activity magnets.

Other significant transport features are far less conducive to diversity of use or activity. We have already seen that major highway infrastructure can dominate towns and cities both physically and visually, especially where grade separation is involved. Elevated structures, in particular, are generally hostile to land uses and building forms that generate pedestrian activity. The design of other types of transport facility, such as multi-storey car parks, can also have a strongly adverse impact on the life of adjacent streets.

We are all too familiar with barren urban landscapes that seem to be composed entirely of flyovers, ramps, subways, footbridges and car parks, and we also have plenty of experience of town centres that appear to cease to function by 6pm. It's nevertheless possible, and we should regard it as necessary, to design for movement in ways that have a positive impact on urban life.

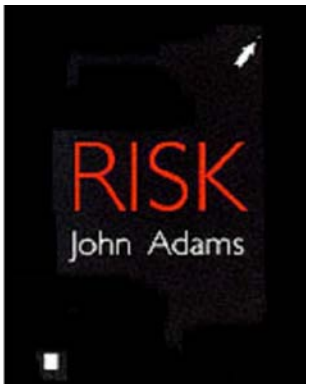
2 OVERCOMING THE BARRIERS

2.1 RISK

When delegates to the Streets for People course were asked to identify what they experienced as barriers to achieving the objectives of urban design in their professional roles, some risk-related issue was nearly always the first mentioned. Usually the concern was that unconventional or innovative highway designs would be likely either to provoke an adverse report from the road safety auditor or to take engineers out of the comfort zones represented by 'the regulations' they were familiar with. Or both.

At the back of this concern is the spectre of litigation: that failure to design 'by the book' will mean that if something goes wrong we will be legally liable. The phrase 'corporate manslaughter' was often mentioned. Despite the fears expressed in this regard, questioning revealed that only a very small proportion of delegates had had any personal experience of such litigation, and that very rarely had this to do with scheme design (as opposed to, for example, maintenance). Although the lack of experience of litigation may be precisely because engineers have not experimented with innovative designs, it is clear that the fear of the problem greatly exceeds the likelihood of it coming to pass.

Highways and transportation professionals need a strong measure of assurance that if they do design differently, albeit responsibly, they are unlikely to find themselves in the dock. One recent publication that provides such assurance is Highway Risk and Liability Claims (December 2005), a practical guide to Appendix C of the UK Roads Board Report Well Maintained Highways: code of practice for highway maintenance management. Through reference to common law and case law, and through worked examples, this document helpfully reasserts the clear principle that any user of the highway is expected to take conditions as they find them – not as they hoped to find them, nor as they found them the day before.

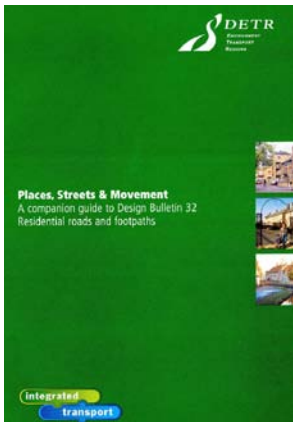


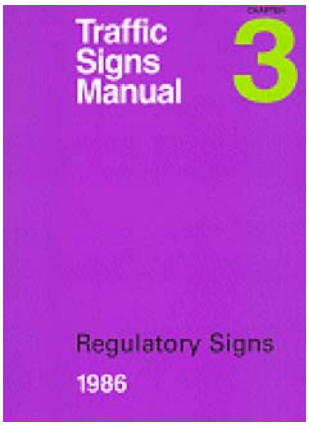
The law clearly does not require designers to use conventional techniques, nor indeed to employ any particular design response to a given circumstance. Above all, there is no burden on designers to assume the responsibility of the individual user to act responsibly and safely.

Other helpful resources include the CABE Space publication What Are We Scared Of? The value of risk in designing public space (CABE, 2005) and the book Risk (1995) by Professor John Adams of University College London.

The main lesson from the workshops is that highways and transport professionals should feel less fearful of taking reasonable, calculated risks in design. Just because a solution may be orthodox does not necessarily make it better or safer.

2.2
STANDARDS





Concerns with risk often relate to the fear of stepping outside the boundaries of custom and practice. These are effectively defined by published standards, regulations and guidance. Whether or not the design standards we are familiar with adhering to are compulsory or merely advisory, we tend to do as they say. Wherever the designs we might propose conflict with or fail to conform to such documentation, we feel constrained.

One consequence of this is that it can be very difficult to innovate, since anything 'non-standard' is likely to make decision-makers apprehensive about the potential consequences. Relatively junior designers can often find their new ideas being knocked back over such concerns, while developers proposing unconventional designs often find themselves obliged to adhere to convention by the traditional approaches and attitudes of development control officers and road safety auditors.

Another consequence is that much of the urban public realm is designed in exactly the same way, regardless of local character and distinctiveness, with identikit solutions that conform to 'the regs' being implemented anywhere and everywhere. These problems are further exacerbated when we implement all that the standards allow, not just what they require. If in doubt, we tend to play safe, adopting a 'belt and braces' approach that leaves the street scene a great deal more cluttered than it needs to be.

Very rarely do we think to examine why the standards say what they do. We either assume they must be right or swallow them whole for simplicity's sake. But it's worth asking, for example, how the 'x' and 'y' distances set out for conventional junction designs for different vehicle speeds were derived. Have these values changed along with advances in vehicle braking technology and carriageway surfacing? Is the value assigned to reaction time in the calculation of stopping sight distances accurate or reliable? We don't know, but we should care.

The Streets for People workshop session entitled 'What the Regulations Actually Say' helped delegates to realise that many of the so-called 'rules' we are used to adhering to are in fact no more than guidance, and that we should consider ourselves at liberty to step outside these boundaries wherever we feel there is a case to be made for doing so in the specific circumstances of a specific place.

Both the standards themselves, and the application of them, tend to be inflexible. Greater flexibility should be encouraged. This legitimate aspiration should guide the development of new and revised standards, not least the Manual for Streets which is presently being drafted and which is intended to supersede Design Bulletin 32: Residential Roads and Footpaths.

2.3
RESOURCES

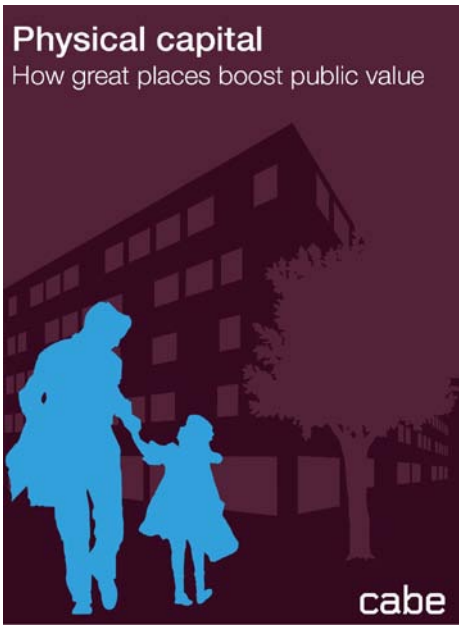
In 2003, the Institution of Highways and Transportation undertook a survey of its members, asking them what they considered to be the main barriers to improving the urban design qualities of their outputs. Almost 90 per cent of over 1000 respondents cited a preoccupation with costs, not quality; around 60 per cent highlighted the lack of capital investment; and more than 40 per cent identified the lack of revenue funding as a problem.

While Streets for People delegates reflected similar concerns, they also drew attention to other resource-related barriers, specifically time and people. In essence, the concerns were (a) that implementing unconventional public realm design approaches will simply take longer, at least to begin with, due to the time required to convince funders, decision-makers, development control officers, road safety auditors and end users alike that the new approaches will be better than what they are familiar with; and (b) that skilled and experienced staff are already under enough pressure, without additional demands on them in terms of designing, developing, guiding and vetting less conventional highways and other public realm proposals.

Good urban design need not cost more than the alternatives, and it can cost less. Although high-quality materials can make an important difference in certain locations, well-designed schemes can use concrete and black-top just as well as yorkstone. Equally, cost savings can accrue through the simple expedient of installing fewer poles, signs, bollards and railings. The costs of maintenance costs and insurance claims can also be reduced.

While this is true, there remain legitimate concerns about the difficulties of attracting money for highways and public realm works not covered by traditional sources of transport funding, and of securing adequate maintenance funding. Here, change should be led by government agencies, including the Department for Transport and the Department for Communities and Local Government, in delivering the necessary change to national and local funding regimes.

No serious policy initiative should be launched without clear financial commitment to support it over the long term. In the same way, the Government should not encourage local authorities to adopt new approaches, such as a stronger focus on urban design quality, and at the same time require them to speed up the planning process, without assisting in the recruitment of additional staff. If a job is worth doing, it's worth resourcing properly.



The same principles apply within local authorities. Better urban design must be higher on local agendas, but it will not be consistently delivered unless backed by greater resource commitments.

In a time of increased demands on the public purse, the prospect of more resources being made available for an improved public realm may seem uncertain. However, good design is good for business. Although the payback will not be immediate, and both a long-term perspective and new approaches to funding will be necessary, the benefits will flow as we build places that attract people.

2.4
EDUCATION

Having enough staff to do the job is not simply a matter of numbers; it's a matter of having people who are properly equipped to do the job required of them. In the 2003 IHT member survey, well over half the respondents said that the quality of their urban design outputs was adversely affected by a lack of appropriate urban design skills and expertise, and a lack of urban design training. The Streets for People workshops are intended specifically to address this concern.

The workshops made it clear that 'urban design' is not so much a new discipline in its own right as a set of guiding principles that any built environment professional should adopt. In that they are involved in designing parts of the urban realm, highway engineers, traffic engineers and transport planners are already urban designers. We need to appreciate the implications this has for the work we do.

The impression is sometimes given that highways and transportation professionals need to unlearn some of their traditional techniques and replace them with some more 'enlightened' urban design techniques. This is untrue. While attitudes and perspectives need to change, the particular skillsets that transport engineers and planners have are as necessary now as ever. Perhaps the key educational requirement for transport practitioners is to gain a clearer understanding that transport is a means to an end, not an end in itself. The end in question is the creation of places where people can and want to live, work and play.

Streets for People delegates were also clear that there are many others who need to be educated in the principles of good urban design if their own urban design outputs were to be improved. If key decision-makers, including funders and councillors, do not appreciate the advantages of good urban design, better schemes are far less likely to be implemented. Equally, capacity building with end-user groups, not least local communities and other stakeholder bodies, will often be needed, most likely on a project-by-project basis, in order for them fully to understand, support and endorse new ways of improving the parts of town they're most interested in.

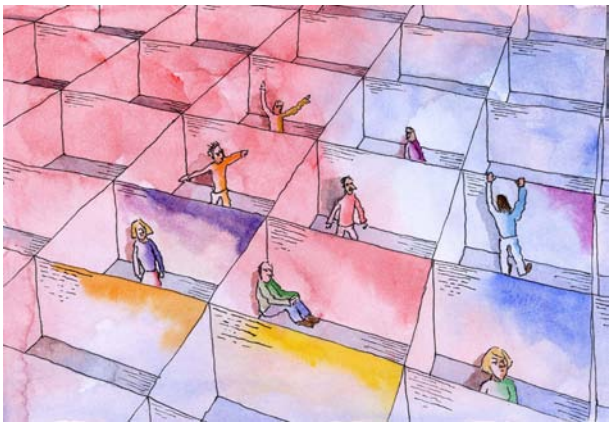
Both By Design and English Partnerships' Urban Design Compendium were published in 2000, but the approach to urban design and development that they set out is as yet by no means universally known or understood. CABE has initiated a number of successful urban design training streams in addition to Streets for People, with target groups including local authority councillors and volume house-builder executives, and also runs an annual urban design summer school, held in June. These programmes and others need to be taken on by local authorities and other agencies if all those involved in urban development are to appreciate and actively seek better designed towns and cities.

2.5
TEAMWORK

If highways and transportation professionals are urban designers, by dint of the simple fact that they are designing in the urban realm, so too are all 'built environment professionals'. This understanding should lead to a better appreciation of the need for all the different skills and expertise that people from different disciplinary backgrounds bring to the whole. However, the experience reported by Streets for People delegates is that traditional structures, professional jealousies and inward focus mean that planners, engineers, architects and others rarely work together with a sense of common purpose.

We need to break down silo mentalities and look outside the traditional confines of our professional boxes. None of us has all the attributes necessary to design a town or city, and no discipline has the right to insist on primacy when it comes to design solutions. Engineers can not assume that the highest priority at a junction is to ensure that ratios of flow to capacity are what they regard as acceptable; neither can those promoting better walkability act as though direct movement along key desire lines must be provided for irrespective of the impact on traffic congestion. Similarly the most important element in a masterplan should not be the iconic building. Development control processes are not more important than development, and transport models are tools not the source of ultimate truth.

Recognising the need for and benefits of collaborative teamworking is one thing: achieving it is quite another. Large organisations tend to have divisional structures based on professional disciplines and separate heads of planning, engineering, architecture and the like. Although umbrella-like departments have become more familiar, with titles such as Environment, Sustainable Development, Public Realm or Regeneration, teams of professionals with different backgrounds tend only to be formed for major projects or specific, high-profile areas (such as town centres).



While 'multi-disciplinary teams' are increasingly to be found in such circumstances, the extent to which professionals from different disciplines genuinely work on a project together, rather than simply at the same time, is usually limited. It is not enough to be merely on the same Gantt chart, or to meet other team-members only at project management meetings.

The way ahead is the formation inter-disciplinary teams, specifically briefed to collaborate with one another in bringing forward designs. Such teams should become the rule, not the exception, and be active at the earliest stages of project development. This is crucial: more than half the respondents to the 2003 IHT survey reported that highways and transportation professionals became involved at too late a stage in projects. Inter-disciplinary teams may be created by wholesale restructuring of divisions or through a more ad hoc, hands-on approach to the deployment of staff by senior managers. This approach should be applied to projects of all sizes, recognising that the dismal public realm of many towns and cities is often the result not of one major mistake but myriad smaller ones.

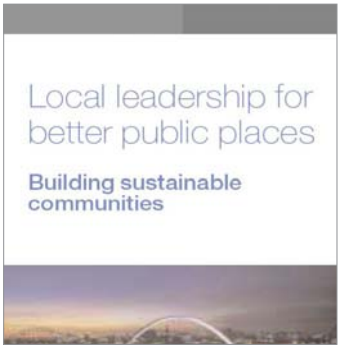
2.6
LEADERSHIP

Better teamwork, along with change in each of the other identified areas of particular concern, will not happen on any significant scale unless the change is led by people with both vision and authority.

It is now relatively common for local authorities to have designated 'design champions' at member and officer levels. Some have design and historic environment champions. However, the extent to which these individuals are commissioned and empowered to encourage or even enforce change varies widely. Design champions may be relatively junior officers or senior politicians. In the former case, they can be regarded by other professionals, who are 'just trying to do their jobs', as irritants, dreamers, time-wasters, or all of these. But when the drive for better design is led from the top, others are far more likely to take notice and run with the new agenda.

The recent record shows that wherever innovative, well-designed new highways or public realm works have been implemented, this has been at least partly the result of conditions conducive to change having been created by senior officers, members, or both. This is not simply a matter of key individuals exercising power: it is also a matter of these people having themselves been inspired by and trained in the principles of good urban design.

As yet, there are few enough individuals having this combination of attributes. It is worth considering how more, and more effective, design champions can be raised up, especially within public agencies, including those concerned with health and educational facilities. One option may be to establish an accredited short course, aimed at providing mid-career managers and elected officials with the understanding and evidence they will need to lead in delivering design excellence. These or similar course might also help to raise up 'design champions' in private sector organisations such as volume house-builders and developers. Without opportunities such as this, any amount of willingness is unlikely to be translated into positive action.



It is important that leading is not simply left to those at the top. All of us, whatever our level of professional responsibility, can push for change and seek to lead by example. It is within the range of anyone, for example, to suggest that colleagues from other disciplines be brought in to provide a broader perspective at the concept design stage, to seek out and ask for appropriate training, or to express an opinion that is not traditionally within their professional remit. Taking a lead can be as simple as saying: 'I may be a signals technician, but as a pedestrian I'd hate to have to negotiate the four separate pedestrian phases across this one arm'.

Streets for People workshops are not just about passing on information. They are intended to inspire and empower people who, whatever their sphere of influence, will in some way lead the highways and transportation professions to change the way we work for the benefit of where we work.

2.7
GOOD PRACTICE

The view across Nottingham's Maid Marian Way from the same spot: before and after recent changes

By far the most convincing way of communicating the benefits of good urban design, and of encouraging professionals to want to produce better-designed schemes, is to be able to show where innovative approaches to highways and public realm design have been delivered and found successful. This is particularly important in giving designers and decision makers the confidence that they will not be taking unwarrantable risks if they try something new. Where there is precedent, there is comfort.

It is important that examples of good practice are sought from places having common characteristics with the place where change is now being considered. Piazzas in famous Mediterranean resorts should not necessarily be thought of as appropriate exemplars for the design of public squares in the north of England. Similarly, while important design principles can be established by reference to the grand boulevards of Europe, they cannot act as templates for reconfiguring streets in British market towns.

As things stand, contemporary UK examples of good urban design in transport schemes aren't that easy to find. Indeed, one of the reasons that the improvements to the High Street in Kensington, London have received wide publicity is that there are few similar schemes jostling for public attention, and fewer still where useful information has been made so readily available. It is, for example, extremely helpful to know that a project involving the removal of over 90 per cent of the original pedestrian guard-railing led to an average reduction of 64 per cent in the number of pedestrian injuries in each of the first two years after its completion. It is still more encouraging when you know that reducing casualties wasn't the scheme's primary purpose.

Awards can help a great deal in celebrating and disseminating good practice. Local Government News has for 20 years presented its annual Street Design Awards which reward innovation and good practice in urban street design schemes involving local authorities, while in 2005 the annual Transport Practitioners Meeting inaugurated an Urban Transport Design Award for highways/transport schemes that are commendable for their contribution to place-making. Recent winners of these awards include Chepstow High Street, Newington Green in Islington, Maid Marian Way in Nottingham and Newland Avenue in Hull.

The latter scheme is one of 10 Mixed Priority Routes pilot projects sponsored by the Department for Transport, each of which is attempting to introduce innovative designs to solve road safety and street environment problems in struggling high streets. These projects, as they are completed and become used, should provide evidence to encourage or otherwise guide highways and transportation professionals faced with similar challenges.

Finally, in recognition of the importance of seeking out good practice and making it known, CABE has decided to commission the preparation of a Good Practice Guide for Streets and Civic Spaces, with the intention that it should become an invaluable resource for practitioners.
Watch this space...

READING LIST

By Design – Urban design in the planning system: towards better practice (DETR/CABE, 2000)

Better Places to Live – a companion guide to PPG3: Housing (DTLR/CABE, 2000)

Delivering the Skills We Need (CABE, 2000)

Streets for All – Guidance for practitioners (DfT/ English Heritage, 2005))

Traffic in Towns – A study of the long term problems of traffic in urban areas ('The Buchanan Report', 1963)

Streetscape Guide (Royal Borough of Kensington & Chelsea, 2003)

Transport Development Areas – Guide to Good Practice (RICS, 2002)

Highway Risk and Liability Claims – A practical guide to Appendix C of 'Well Maintained Highways: code of practice for highway maintenance management' (UK Roads Board, December 2005)

What Are We Scared Of? – The value of risk in designing public space (CABE, 2005)

Physical Capital – How great places boost public value (CABE, 2005)

Paving the Way – How we achieve clean, safe and attractive streets (ODPM/CABE, 2002)

Transforming Our Streets - a briefing on progress and next steps following Paving the Way (CABE, 2006)

Places, Streets & Movement – A companion guide to Design Bulletin 32: Residential roads and footpaths (DETR, 1998)

The Traffic Signs Regulations and General Directions (HMSO, 2002)

Transport in the Urban Environment (IHT, 1997)

Planning Policy Guidance Note (PPG) 13: Transport (DETR, 2001)

Design Manual for Roads and Bridges (Highways Agency), including HD 19-03 Road Safety Audit (2003)

Housing Audit – Assessing the Design Quality of New Homes in London, the South East and East of England (CABE, 2004)

Housing Audit – Assessing the Design Quality of New Homes in the North East, North West and Yorkshire & Humber (CABE, 2005)

Local Leadership for Better Public Places – Building sustainable communities (CABE, 2004)

The CABE sponsored 'Streets for People' Workshops were delivered at a variety of locations throughout England between 2004 and 2006 by:

Rob Cowan, Director, Urban Design Group.

John Dales, Director of Transport and Movement, Urban Initiatives.

Peter Piet, Director of Urban Design, Project Centre.

Colin Davis, Principal, Colion Davis Associates

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