Written submissions provided for the Transport Committee's review on improving walking in London

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Getting Londoners Walking Consultation
Submission

This may appear to be a rant regarding cyclists. It is not, it is based upon daily experiences as the holder of a clean driving licence who uses public transport together with walking walking 10 miles during a typical day/night. My perception based upon experience is that I am at greatest risk from cyclists which is why it dominates this submission.

I do also have various ideas to improve cycling safety but they are not part of this consultation.

Traffic Signals/ Turning Left

The scheme approved by the last government to allow cyclists to turn left through the red phase of traffic lights & through the green phase for pedestrians, where it exists, should be abandoned. It puts pedestrians at extreme risk & will lead to late crossing by pedestrians. There are existing problems with crossing late or taking longer than necessary to cross due to the antics of cyclists at traffic lights & pedestrian crossings sometimes as other cyclists fly down the footway.

Traffic Lights/ Countdown

I have already made this suggestion to London Streets without reply. I am not in favour of "Countdown" as this will encourage late crossing and also stress the less able who need and expect longer to cross the carriageway. What is needed is a "Countup". A "Countup" would save valuable seconds whilst carers with prams or young children, the elderly & disabled and those with heavy shopping can prepare to cross the road. (Older sets of traffic signals allow pedestrians to see the traffic light sequence from the side & the crossing signal for pedestrians can still be seen whilst crossing the carriageway. there also seem to be fewer traffic signals with audio for the less sighted.)

Naked Streets

Where safe I am in favour of the removal of kerbside railings including railings at bus stops. I am in favour of some decluttering of the pedestrian realm. There seems to be a conflict between decluttering & recluttering taking away necessary signage, seating, rubbish bins & council/commercial street furniture but encouraging & licensing outspill from commercial premises and adding cycle parking (without evaluating whether the positions chosen are a danger to street users) together with some beautification such as flowering shrubs. I am not in favour of a shared realm with pedestrians, cyclists & motorists. This is confusing to some pedestrians & cyclists are unable to cope with it. Where possible cyclists should be in segregated lanes rather than shared lanes when on the footway as recommended in previous studies, with a preference for cycle lanes on the carriageway.

Diagonal Crossings

I do not see what is revolutionary about diagonal crossing at crossroads. Where all roads

have the same green crossing cycle & the green/blackout time is suitable I have been doing this for as long as I can remember. It is logical and should be encouraged.

Footway Sited Street Plans & TfL street maps
Some maps are North/South & some are direction orientated. If one is not familiar with an area it can be misleading. There should be a standard design box on all these plans showing the direction of North with one of two standard wordings such as "This map is North/South" or "This map is Street Real".

TfL Web Site
The TfL site should be more pedestrian friendly. It seems to have the perception that walking is a leisure activity and not a way to get from A to B.
"Have you ever considered getting off the bus or Tube a couple of stops early and walk the rest of the journey?" or have a walk along the Greenway, etc..
The journey finder sees walking as a default setting, rather than a first choice, which needs tricking for longer walks & is not necessarily showing routes specifically for pedestrians. The database should be able to show pedestrian routes, cycling routes & quiet cycling routes.

Bus Stops
Cyclists do not expect or like to find pedestrains waiting at bus stops particularly where they narrow the footway. Where it is legal to cycle on the footway by a bus stop and cyclists are likely to follow a natural course through a bus stop even if there is a cycle route diverting around it the ground by the bus stop or in front of the bus shelter should be painted yellow, or hatched yellow to conserve paint.

Toucan Crossings
it needs to be made clear at Toucan Crossings that this does not necessarily mean that it is legal to cycle on the footways at each side other than in the marked cycle lanes to return the cyclist to the carriageway.

Traffic Speed
I do not believe that most roads in London should have a maximum speed of 20mph although It does suit some local roads. It can be more difficult judging safely crossing roads with traffic at a 18/20mph that at 28/30mph. It also shows the nonsence of the DfT advice that where it is legal to cycle on the footway a reasonable speed is to travel at up to 18mph. (The advice is that if the cyclist wishes to cycle at over 18mph they should use the carriageway.)

Contraflow Cycling by Cyclists
Contraflow cycling without cycle lanes along all one way streets is a dangerous idea. The suitablility of the roads concerned incuding the layout of the road and outlets should be taken into account. In a short unscientific survey during the initial trial in Holland Street, W8 I noted that two out of three cyclists jumped the footway when a vehicle came into sight, weaving through parked traffic if necessary. If this is to be allowed the laws of cycling on the footway in these street must be strictly enforced. I have also noted that in Westminster and Camden Stage Carriages are imitating the bad habits of cyclists in travelling contraflow along one way streets & along footways. If nothing is done to remove legal contraflow from Stage Carriages only roads suitable for contraflow by both cycles and Stage Carriages should allow unmarked contraflow. All entry points should be clearly marked to warn of the contraflow.

Background
There appears to be a perception that pedestrians are third rate citizens & do not count and a 'green' view shared by most politicians is that as bicycles & stage carriages are almost carbon neutral once built & delivered this balances everything else out.

The problem with most cyclists is that they do not care for their own safety and therefore cannot be expected to care for anyone else's. At night 80% of cyclists have no front light, 80% of cyclists have no rear reflector or red light and 80 % of cyclists ride on the pavement. Not necessarily the same 80% and at a time when most street lighting is dipped presenting a colour temperature that makes it harder to see them. When a cyclist on the footway (whether legal or not) approaches a blind corner they do not

usually slow down in case another cyclist is mirroring their action. To put it another way a large proportion of Cyclists & Stage Carriage Operators are breaking the law a large proportion of the time, often putting themselves at more risk than anyone else. I have an incomplete list of the myriad of antics that I have seen which has over 40 examples.

In practice, on the rare occasion that a cyclist draws attention to themselves as suggested by the Highway Code (for instance by ringing a bell) the usual interpretation is a cry of 'get out the f-----g way' although I have had 'get out of the way you c----'. This is particularly favoured on narrow pavements, where cycling is illegal, when there is no traffic on the road and at bus stops. I have often just managed to remove my feet when sitting at bus shelters where a cyclist not expecting anyone to sit there and objecting to people waiting for buses in the same way as they object to buses using bus lanes as buses stop at bus stops has shot through without taking reasonable care.

In having to explain why I am not a crank in taking the position of a pedestrian I have an e-mail from a local government officer in one of the London Boroughs with a personal view that he does not see a problem when cyclists ride illegally on the footway, is not sure who would enforce the relevant laws and that whilst his council has a 'Cycling Officer*' who consults with the cycling lobby three times a year a 'Walking Officer' would be deemed an unnecessary and invented job as the promotion of cycling as an alternative to car use is central Government, GLA and local policy.

**this officer also has other responsibilities*

The problem is that there is no lobby group for pedestrians without a conflict of interest. The conflict with Sustrans is obvious. Living Streets is promoting the 'Naked Streets' Policy along with the Civic Societies together with its initial primary aims of protecting pedestrians from the motor car and many of its events are partially funded by the cycling lobby including the London Cycling Campaign & CTC. It has belatedly brought out a policy on cycling however it did not counter-petition against the petitions of the London Cycling Campaign to remove the clauses regarding cycling on the footway & thoughtless cycle parking within London No. 2 Bill. Thus the clauses failed from lack of a reasoned argument and support.

From discussions I understand that most PCSO's believe that it is only illegal for cyclists to cycle 'furiously' on the footway. I have also been told that cyclists do not need to be in proper control of their carriage and that cyclists **under 18** cannot be stopped and told to ride on the carriageway as if they have an accident the Police can be sued. Police Officers have told me that the only penalty is the £30 Penalty Notice and that the up to £500 fine via the courts no longer exist. I note when channel hopping and only seeing around one hour of 'Police Action' TV the comment regarding drivers driving whilst disqualified that they 'should have got on their bike'.

There is DfT advice that if a cyclist is seen on the footway the police should be informed. Too late & to what avail?

When I contact London Streets regarding where it is legal to cycle on footways on TLRN roads I am told that if TfL has put up signage without Traffic Orders (& incomplete) it is up to the police to know and prosecute cyclists. My request was to cover up the relevant signs until both compete & legal. If I was cycling along a footway from the point that these signs have appeared I would see it as a reasonable defence that the signs were there even though there were no signs showing where the shared footway ended although there are in some cases tactile paving for the disabled indicating pedestrians only. I have been previously told that there is no list of where it is legal to cycle on TLRN footways and that current applications and existing Traffic Orders cannot be inspected. The contact centre cannot seem to find existing Traffic Orders when I complain of incomplete signage leading to cyclists continuing past where it is legal including through a bus stop & narrow blind spot & no notice is taken of that particular request which has been repeated for the past 3 years.

The GLA recently held a consultation on cycle parking that I would have liked to have responded to. However, when I examined the questions I found that it was only for cyclists and not for other realm users with questions such as 'is there enough cycle parking?'.

Cycling Signage on the Footway

I know traffic signage and can understand 99.99% of the time what cycle signage actually refers to. However, many cyclists I have spoken to including mid-level local government officers are confused by it. Information, Mandatory and Advisory signs have the same colour format and can refer to the footway or the carriageway being on any part of the footway width. Pressure should be put on government to regularise it. Legal cycling the footway often ends abruptly without crossovers encouraging illegal cycling. This applies to TLRN controlled roads as well as others.

Cycling on Footpaths

Cycling sites point out that whilst cycling on footpaths is illegal any enforcement is nominal because unless bylaws apply prosecution would be frivilous as any damages would be in pennies for trespass. Footpaths under GLA control where the GLA does not intend shared use should be subject to bylaws with penalties and London Boroughs and Public Authorities should be encouraged to take the same action where footpaths are under public control.

Cycle Parking

Cycle parking should be subject to the same Health and Safety assessments as everything else. Bicycles have 'bits' sticking out which if street furniture would be subject to emergency enforcement notices. Where not parked in bays with a tactile yellow band around bicycles should need a cover of striped yellow and black. Cyclists like to park in the place that is most dangerous such as handrails for the disabled, railings and lamp posts on narrow pavements especially by bus stops and underground stations, on traffic light posts (over tactile paving for the disabled is seen as a plus), across the back of seating with the handlebars sticking through, attached to street furniture and road signs or lamp posts in the middle of the footway and if all else fails laying flat across the footway or across a building doorway. I have even seen them attached to bus stops. Some London councils seem to be very poor at siting cycle parking in safe positions. (Extract from a report for the London Borough of Redbridge - 'Cycle racks are provided but under-utilised as cyclists prefer tolock their cycles along the High Street') Cyclists also like to 'dump' their machines flat on the ground and over the entrance to buildings.

Penalties

The Penalty Notice fine for cycling on the footway is ridiculous. It is £30. The sum for smoking in a substantially enclosed area is £50, for dropping half a matchstick on London Boroughs up to £80 & in at least one London Borough for walking a chihuahua without a lead is £100.00. Whilst I think that it is too high a first penalty the Mayor has called for a penalty of £130. However, this was after the clauses in London No. 2 Bill regarding cyclists were thrown out. I note that no new bill has so far been promoted by the GLA.

Enforcement

I do not understand how enforcement of the laws regarding cycling on the footway work. Usually, Police Officers, PCSO's & Police Traffic Vehicles pass the offender without notice or comment. In the rare cases that I have seen them stopped they usually get back on their cycle as the officer turns their back. When they have not, I have on occasion followed the cyclist & as soon as out of sight remount often laughing with amusement in either case.

No details are taken of the offender so no one will know if they are, perchance, stopped again and no notice is taken if they are cycling at night without lights. I have not been around at the time when a cyclist or stage carriage operator has been also conducting any of the illegal practices they often follow so I do not know if safety would be taken into account.

Green Chain Walking Festival 2009
14 walks, 1000 people!

Introduction

The Green Chain Walking festival took place on the 12th to 20th September 2009. The festival has developed over the past 5 years into a highly successful event, and has become a spring board from which to raise the profile and awareness of the Green Chain both locally and nationally.

Over ten days participants explored fourteen Green Chain open spaces; meeting the people who know the space best and hearing the facts of past and future. This year all the walks were planned together with local community groups who knew and cared about the places they were walking. There was an atmosphere of generosity amongst the groups involved, with many going the extra mile to offer festival goers a superior walking experience.

For the Green Chain project the festival is more than just ten days of walking. It is a simple but powerful tool to showcase the Green Chain for sustainable transport, health development and enjoyment. We again partnered with the Primary Care Trusts; making use of their expertise in walk leading and using the festival as an opportunity to promote regular health walking.

A spectacular launch to the festival was provided by the children of the Green Chain boroughs. Under the direction of TARU Arts Company they paraded at the Mayor's Thames Festival on the Southbank as part of the Green Chain Schools Outreach Project.

Over 1000 people attended the 14 walks, demonstrating a level of interest in walking never seen in previous festivals.

Walk 3 – Bostall Woods (credit: Wendy Ward)

Walk 1 – Maryon Park

Key facts from the Festival

- Attendance figures were up 93% overall on 2008 figures, with significant increases at mid-week walks. The total attendance figure was over 1000.
- The festival was promoted in schools through an innovative arts project.
- Twelve friends of parks groups facilitated the walking experience for the public.
- 26 volunteers helped to lead the walks.
- The most popular walk was the Friday evening bat walk, which was attended by at least 270 people.
- 90% of people surveyed rated the walks as good or excellent.
- 19 people completed 5 or more of the walks and received a special certificate.

Table 1. Numbers of people attending the festival

Walk location	Borough	Number Attending
Maryon Wilson Park	Greenwich	68
Peckham Rye Park	Southwark	8
Bostall Woods	Greenwich	114
One Tree Hill	Southwark	62
Beckenham	Lewisham	59
Lesnes Abbey	Bexley	49
Avery Hill	Greenwich	40
Horn Park	Greenwich	31
Crystal Palace Park	Bromley	51
Crossness Bat walk	Bexley	270
BIG walk	Greenwich	81
Grove Park	Lewisham	55
Sydenham Wells Park	Southwark	70
Well Hall Pleasaunce	Greenwich	100
Total		**1058**
Average		**76**

Green Chain Walking Festival 2009
14 walks, 1000 people!

How the walks worked

- Walks were chosen based on proposals submitted by the community groups.
- Walks included facts and information presented by local people.
- All the walks either started from a train station or a station greeter was available to lead people from the station to the start of the walk.
- Hats and stickers were given to all participants.
- All participants were given the chance to sign up for a regular health walk.

New for this year:

- A walk leader handbook outlining emergency procedures and good practice.
- Name badges for all volunteers
- Feedback cards for participants

Publicity

The numbers attending the festival demonstrates that our publicity was very effective, this is what we did:

- Postcards in cafes and pubs all over SE London
- Mail outs to community groups and schools
- Displays in leisure centres and libraries
- Local events and festivals
- Promotion at the Thames Festival
- Bus adverts over SE London
- Adverts in local and national publications
- Schools outreach project and Thames Festival parade
- Programmes in doctors surgeries
- The Green Chain Website

Our aim was to publicise the festival while at the same time raising the profile of the Green Chain. The most successful elements of the publicity campaign were:

- Advertising nationally in Beer Magazine and Walk Magazine.*
- South East London advertising in Meridian Magazine, Greenwich Time, Bexley Magazine, Bexley Summer Sizzler and Parents news.*
- Bus adverts were very prominent across South East London over the festival period. +
- Thousands of programmes were given out at the Thames Festival.
- Libraries were the key for reaching local people. +

*Success was based on the number of letters received in response to a special offer featured in the advert.
+Success was based on Green Chain staff observations and verbal responses from festival goers.

Festival launch parade

Bus advertising

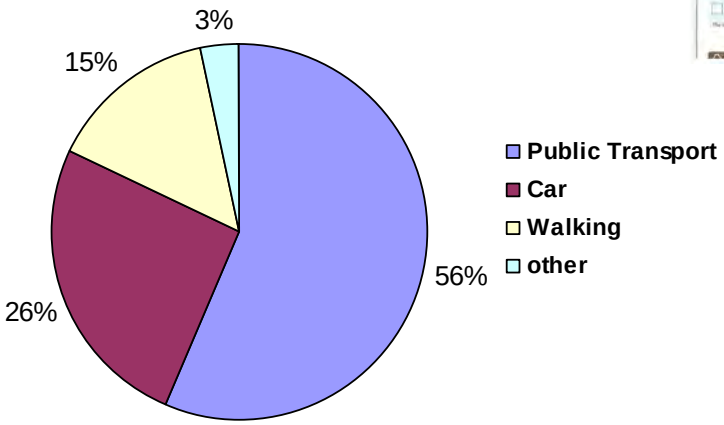
Magazines used for advertising

Green Chain Walking Festival 2009
14 walks, 1000 people!

Feedback from Participants

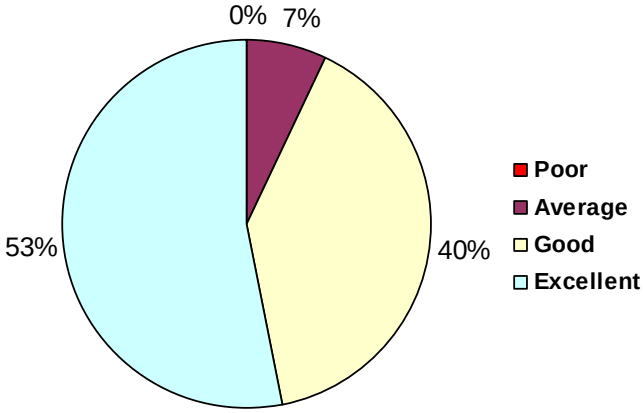
The Green Chain carried out research amongst festival participants, and asked:

How did the participants arrive at the walks?

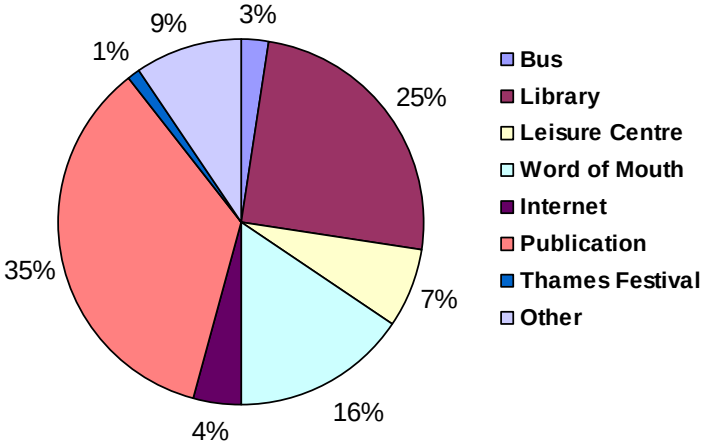


Feedback form

How did participants rate the festival?



Where did people hear about the festival?



99% of those questioned would like to take part in future walking festivals.

Feedback from participants

"It was the first one [festival] I have come along to and it won't be the last" – *Helena Woods, Festival participant.*

"Well done Mark and team, you have attracted huge numbers of walkers this year, of all ages and abilities. You must be very proud." – *Mr R. Gordon, Festival participant.*

"An enjoyable morning in good company, thank you" – *Festival participant*

"Full credit to the Friends of Bostall Heath who arranged the walk – excellently presented" – *Festival participant*

"The walk leader John was really good" – *Festival participant*

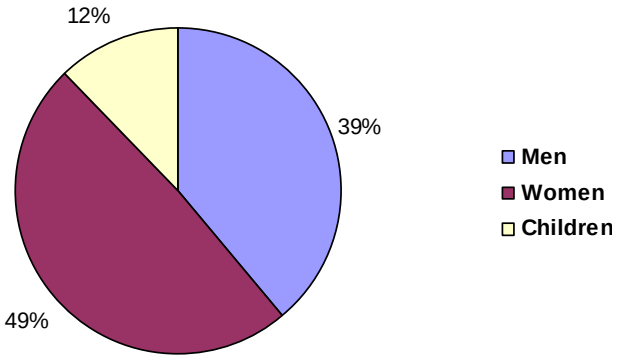
Walk 13 – Sydenham Wells Park

Green Chain Walking Festival 2009
14 walks, 1000 people!

Feedback from walk leaders

The Green Chain carried out research amongst festival walk leaders, and found:

- The percentage of men, women and children attending the walks:



- The diversity of London's community was not well represented. Just one walk attracted a diverse range of participants; the majority of people attending were white.

- All the walk leaders felt that their walk had been a success and that the distance covered was just right.

Children made up 12% of the participants

Acknowledgements

The Green Chain is very grateful to the following organisations whose sponsorship, support and partnerships made the event possible:

Event Sponsors

Organisations involved in planning the event

Green Chain Partner Authorities

Schools Outreach Project coordinators

London Design Surgeries
Introduction

There is growing recognition that good design is needed to deliver successful development and help create and maintain high quality, durable and efficient neighbourhoods.

There are a number of ways in which good design can be secured, for example, through ensuring staff have adequate skills, through appropriate design policies and through commissioning design work. The assessment of schemes by a group of experts, especially early in their development has been seen to help in many parts of the country. This is often called a Design Review, where the assessment is formal and letters are produced setting out comments. However, not all assessments have to be done in this manner. Informal surgeries and ongoing support through the life of projects can sometimes be just as helpful.

For this reason, the NLSA, DfL(LDA), HCA, CABE, and UDL are working in partnership to provide design surgeries to support North London boroughs to assess the design quality of development proposals.

1) What are design surgeries?

Sessions run for approximately an hour where a group of between 4-6 design experts and Borough officers consider schemes together and discuss and critique what is good or bad about them and how they can be improved. In general, the borough officer would present the scheme unless the applicant and/or architect are requested by the borough to present the scheme.

2) Who is involved?

After a trial of 5 surgeries from September 2009 - January 2010, the programme has been extended to run April 2010 – February 2011. Funding would be provided and managed by the North London Strategic Alliance (NLSA), Urban Design London (UDL), Design for London (DfL) within the London Development Agency (LDA), Homes and Communities Agency London (HCA) and Transport for London (TfL).

Design Surgeons who sit on the panel for each session will be chosen based on any particular specialism that the borough requires for the schemes they bring to surgery. There will also be a chair for each surgery chosen from this list.

Surgeries can be used by all London boroughs but priority will be given to North London Boroughs including: Haringey, Enfield, Waltham Forest, Redbridge, Barnet and Hackney.

3) How will surgeries compliment existing resources?

Design surgeries can offer informal advice on schemes where boroughs feel this would be beneficial. The surgeries should not be seen as replacing the need for skilled in

house staff and will not offer the formal advice produced by internal or national Design Review sessions.

They can help to support and inform discussions and assessments made through other processes, providing back up and support for design officers who are unable to discuss schemes with other designers, or where development control officers want to get to grips with design issues.

Design Surgeries could lead to ongoing support on projects from DfL. Whenever possible, DfL staff already involved with area project will attend the relevant surgery sessions.

4) What will happen during a Design Surgery?

Surgeries are informal and no formal minutes are taken. The borough design or planning officers bring plans, drawings and any other relevant material to explain the scheme. The chair will then lead a discussion of the merits of the scheme, considering any particular problems or issues the borough want advice about.
Borough officers are free to take notes at the surgery, but no formal letter spelling out issues will be produced. It is suggested that officers use the discussion to help inform their own negotiations, reports and recommendations.

5) What will the Design Surgeries provide?

Surgeries can provide back up and support for officers, particularly if design offers work alone and are unable to discuss schemes with other designers. If there is little in-house expertise, a design surgery to discuss an application may be helpful for a DC officer to get to grips with design issues.

6) Costs

The design surgeries will funded by the delivery partners and boroughs will not be asked to pay for the surgeries. Boroughs may be asked to provide a venue where applicable if slots for design surgeries apply mainly to schemes in the Borough.

7) Liability for advice given in surgeries

There's an understanding between all parties involved that Urban Design London (UDL) will assist in providing advice in the design surgery session. These surgeries are only designed to impart informal advice which participants in the surgeries are free to use within their discretion.

UDL (as well as UDL’s host organisation, the London Development Agency) and any other participants on the advice panel does not undertake responsibility for any accuracy of the information provided which should be verified by the participant before any future action is taken. By participating in the service, you agree that you will not hold the

London Development Agency or UDL responsible for any losses or claims that you might suffer resulting from any advice given in the surgeries.

7) Design Surgeries Dates

Surgeries will take places on:

21 Apr 2010
27May 2010
25th June 2010
20th Jul 2010
16th Sept 2010
13th Oct 2010
3rd Nov 2010
3rd Dec 2010
11th Jan 2011
15th Feb 2011

3 to 4 schemes can be seen on each date, each scheme is allocated 1 hour.
Rooms have been booked at Palestra, but if any particular borough wishes to book all the slots on a particular day, the surgery could be run in their offices. Venues in Kings Cross are also being considered if there is more than one borough bringing schemes forward.

Boroughs are asked to book slots 1 month in advance and provide information for the relevant schemes that they wish to bring to Design Surgery and state any particular preferences in terms of specialism or expertise of the surgery advisors.
Booking or queries should be sent to:

Sheena Jaffar
Urban Design London

Or

Rachel Victor-Sampson
North London Strategic Alliance

Terms of Reference

1. Boroughs can provisionally book slots from April 2010 across all 5 surgeries, but the number of slots allowed will be approved by NLSA and UDL to ensure fairness across participating boroughs. NLSA and UDL will confirm which slots have been allocated to which boroughs at least a month before each event.

2. Boroughs must confirm their booking at least 2 weeks before the event. At this time they must provide the following information:

    a. Full description of scheme

    b. OS Map of the site

    c. Status of scheme (e.g. pre-application, outline application, masterplan, etc)

    d. Details of architect, developer and any other organisation, individual or company involved with the scheme.

    e. Details of any DfL, GLA and/or HCA London officers already involved with the scheme (if applicable).

    f. Whether the scheme has, or is due to go to go to CABE's national Design Review – if known.

    g. An outline of the main design issues considered relevant (e.g. flooding, inclusive design, historic conservation etc) and a short justification (100 words max of why the scheme should be seen at the design surgery.

3. When this information is submitted UDL/NLSA will inform any relevant third party (DfL, GLA, CABE etc) that the scheme will be seen at a surgery. They will also suggest to the boroughs surgery advisors for agreement.

4. UDL/NLSA will ask the surgery members to declare any conflicts of interest and sign an agreement of confidentiality if the scheme is at the pre-application stage.

5. If applicable, NLSA/UDL will look to agree a site visit time with the case officer and as many of the surgery members who can attend in advance of the design surgery.

6. It is up to the borough to decide who they want to attend the surgery from their teams and from the applicants team and to manage this attendance. A maximum 10 members can attend from the boroughs including design or development control officers, borough staff and the architect and applicant due to accommodation restrictions at the venue and the Borough is to notify UDL/NLSA in advance of all attendees for security reasons.

7. Should the borough invite the architect/developer, they will explain what the surgery is for, what the applicant/architect will be asked to present (approximately 15mins for presentation) and answer questions that the panel members may ask.

8. Applicants/Architects will not be able to sit in for the full session, but will be invited back at the end of the design surgery to hear a summary of the discussion from the chair.

9. If the surgery forms part of the pre application offer it is the responsibility of the borough to make this clear to the applicant/architect in advance of the surgery.

10. In terms of borough officers attending, only 2 should take an active part in the surgery but up to 5 more can observe if they wish and if the venue can accommodate for additional people.

11. The case officer must provide visual material to allow the scheme to be assessed. This should include site plans, elevations, sections, isometrics drawings and Computer Generated Imagery (CGI) and the design and access statement and, if there is one, a model. Plans should be at least A2 size. The case officer should help NLSA/UDL to pin this material to the room walls or lay them out on tables before the session.

12. At the surgery, the case officer will be asked to give background information on the scheme – explaining its status, any previous discussions that have taken place (at other surgeries, CABE, etc), relevant policies, masterplans, previous approvals/refusals and appeal decisions etc. They should also explain the issues they have with the scheme and any particular design elements they would like comments on.

13. During the session the chair will manage the debate. He/she will ensure that the scheme is fully understood by the surgery members, will focus debate on the issues raised by the case officer and will ensure that all issues are touched on in the time available. They will provide a short verbal summary (approximate 2-5 minutes) at the end of the session. The architects/developers can come back into the room for this if they wish.

14. UDL/NLSA may take notes of the discussion for their own use. These will not be used externally unless all involved are in agreement. It is likely that UDL/NLSA will write up a review of the pilot after the 5 surgeries are delivered, and may refer to these notes and the issues raised – but without linking these to specific schemes to ensure confidentially.

15. The borough may take their own notes and use them as they wish within their negotiation/decision making process. However, in doing this they should not attribute or reference any comment to any particular surgery advisor and note that all comments are of an advisory nature and to be used by the discretion of the case officer.

16. If there are spaces available, the scheme may be brought back at a later session. Alternatively, DfL may be able to continue to support borough officers and help with the development of the proposal. In these cases the borough should agree what help will be provided and deal directly with DfL.

17. Please note: Nobody from the surgeries including NLSA, UDL, DfL or the surgery advisors will provide evidence at appeal based on the surgery session. Neither can

any organisation or individual involved be held responsible for the quality, accuracy or relevance of the comments provided.

Central London Pedestrian Network

A proposal from the Living Streets' London Action Group

Please help us to achieve our vision of a revitalised West End, at the heart of a world-class city for walking.

LIVING STREETS
PUTTING PEOPLE FIRST

June 2010

No place for pedestrians.

Central London **should** be one of the finest cities in the world for walking and exploring on foot. The West End is famous for its great streets and imposing buildings, with history around every corner. There are so many attractions, destinations and meeting-places - all within easy walking range of each other.

But sadly, as anyone who lives or works in the centre will confirm, London is full of problems for people on foot. The streets and public spaces in and around the West End are noisy, congested, and – in the words of the great Danish architect and city planner Jan Gehl – **dominated** by motor traffic. Cars, taxis, and buses always seem to come first, with pedestrians too often treated as an afterthought.

Just look at Oxford Street, the most important retail street in London and one of the busiest shopping streets in Europe, cut in two by an endless line of taxis and buses. A recent report described this iconic street as "a slow-moving bus park" and "a totally unacceptable environment for residents and pedestrians"

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And Oxford Street is not the only problem. These days, traffic nearly always has the upper hand, and it's not much fun being a pedestrian in the West End:

- Narrow crowded pavements.
- Noisy intrusive traffic, often racing along one-way streets and intimidating gyratory systems like Park Lane and Aldwych.
- Obstacles, diversions, and missing links which make it difficult to walk easily and directly from one place to another.
- Not enough fully traffic-free streets and public spaces.
- Crossings which are difficult and even dangerous, hemmed in with guard-rails to stop people crossing in a direct line.
- Pleasant squares and public spaces, like Berkeley Square and Hyde Park Corner, completely encircled by rushing traffic.
- Poor air quality, well below minimum European standards and a serious health risk, mostly caused by diesel fumes from buses and taxis.
- The human cost: too many accidents between motor traffic and pedestrians.

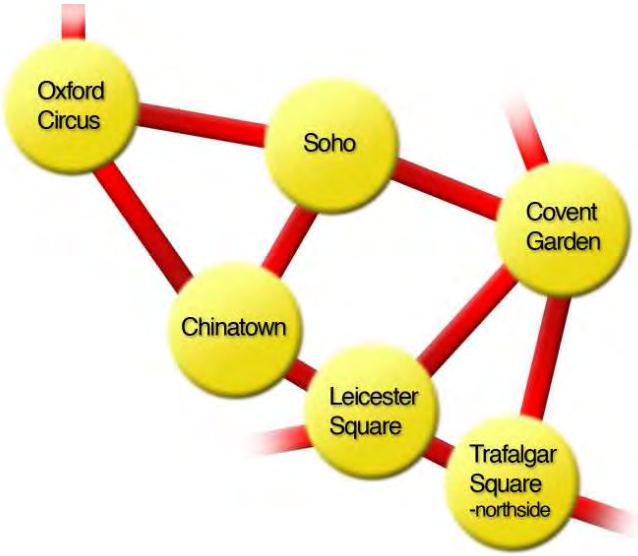
3

Making London a World-Class City for Walking

This picture of traffic domination just isn't good enough for a great city like London, soon to host the Olympics. We need to compete with cities which do more for pedestrians like Barcelona, Copenhagen – and even New York. The bustling, popular streets and public spaces of Central London are much more than traffic highways and intersections – they are important destinations and meeting-points in their own right.

It's time to transform the West End by changing our priorities, putting people first and motor traffic second. **Let's build a network of pedestrian-friendly streets and public spaces in and around the city centre:**

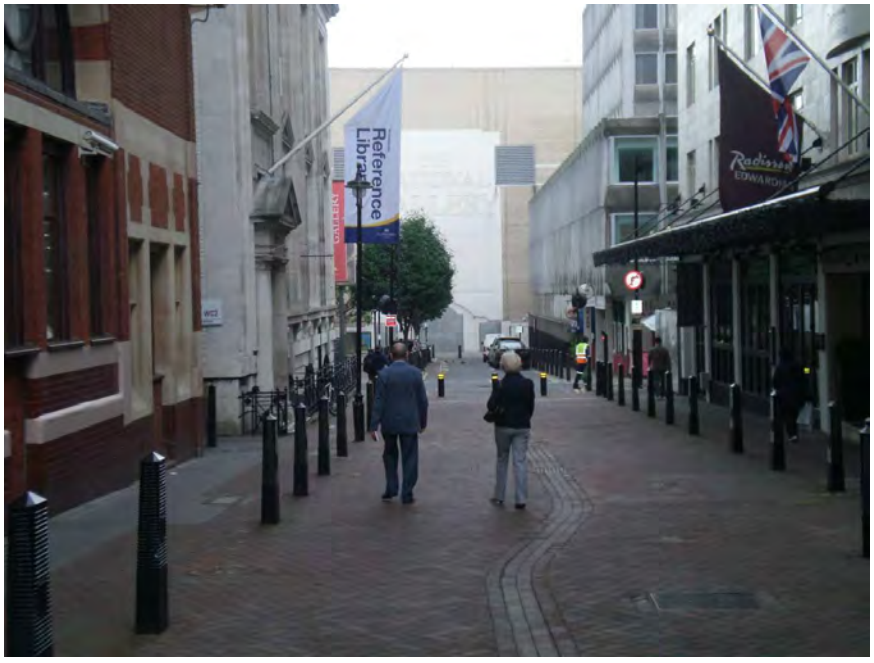
- Many smaller streets and public spaces completely free of motor vehicles, letting pedestrians relax away from traffic noise and danger
- Larger streets which are shared with motor vehicles, but not dominated by them – streets with wide pavements free of obstacles, reduced traffic speed, and good-quality direct crossings without guard rails
- Pedestrian-friendly routes connecting the main destinations and meeting-points, inviting people to walk instead of using cars or public transport
- All linked together to form a green **Central London Network**, giving pedestrians a positive welcome and encouraging them to walk around the city centre and to explore the West End on foot.



Building a Central London Pedestrian Network.

The network could be built up gradually **step by step**, taking full advantage of the pockets of traffic-free streets and local zones which already exist in and around the city centre:

- Start with a central hub like Leicester Square, which is right at the heart of the West End, and already traffic-free.
- Build direct pedestrian-friendly links, connecting the hub to busy destinations nearby which are already fully or partly traffic-free, like Covent Garden, Chinatown, and the north side of Trafalgar Square.
- Gradually bring in other popular routes and meeting-points near to the hub, like Piccadilly, Oxford Street and parts of Soho, upgrading each new part of the network before it is connected.
- Create two pedestrian boulevards as the axis of the new network - one north-south from Regents Park to St James Park along Regent Street (the long-proposed Nash Ramblas), the other east-west from Covent Garden to Green Park along Long Acre, Cranbourne Street and Piccadilly.
- Later on, the network could gradually expand to connect more busy pedestrian streets and destinations around the centre: important retail streets and popular visitor attractions like Neal Street and the British Museum; the main-line stations and Victoria Bus Station; the river, the great parks and squares; a link to St Pauls and the City.



The start of the link from Leicester Square to Trafalgar Square through the National Gallery.

5

The Benefits Of The Network.

A network of pedestrian-friendly streets and public spaces around the centre of the city would have many benefits for London:

- It would soon become extremely **popular** and heavily used. The growing network would quickly attract large numbers of Londoners and visitors, keen to explore the new quieter and safer urban streets and public spaces.
- It would be a **centre of economic vitality**, like the South Bank of the Thames and the small streets around Leicester Square, with new bars and restaurants opening up, attracting more visitors, staying longer, and spending more money.
- It would **reduce pressure on public transport**. Pleasant walking routes free of obstacles and missing links, with good-quality direct crossings, would encourage people to travel on foot instead of using tube, train, or bus - especially on those short trips around the centre where the tube system is under most strain.
- It would **improve air quality.** A reduction in the volume of motor traffic in and around the centre, just where it is most needed, would help to reduce the dangerously high level of pollution in parts of the West End.
- It would **reduce the number of accidents** involving vehicles and pedestrians. There would be less motor traffic, travelling more slowly, with fewer gyratories and one-way systems, and better safer crossings.
- It would be **fair**. In many of the busier streets and public spaces around the centre, the number of people on foot is far greater than the number of people in motor vehicles. The priorities and the allocation of space would begin to reflect this majority.
- It would help people with **restricted mobility**. Older people, families with small children, people with mobility problems - at present often reluctant to visit locations like Oxford Street where traffic levels are high and pedestrian amenities are poor - would be encouraged to return to the West End.

Next steps.

In a time of financial restraint, a pedestrian network like this in Central London would be **practical and affordable** – far cheaper than building additional rail, road, or bus capacity to meet increasing demand. It would be easy to give the project a good start at minimal cost, just by removing some of the obstacles and missing links which make life so difficult for pedestrians at present.

The network would be a helpful and popular way of welcoming visitors to London for the Olympic Games, and encouraging them to get round the centre on foot. It is right in line with the Mayor of London's new Transport Strategy, and his aim to "bring about a step change in the walking experience in London". It would be a fitting legacy from the Mayor to future generations of Londoners.

We urge the Mayor of London and Transport for London to support the concept of a pedestrian network in Central London, as a positive contribution from the city for the Year of Walking 2011.

Appendix - The Network in Detail - A pedestrian network in and around the West End would revitalize the area and give a positive welcome to people on foot. Many famous streets and public spaces around the centre would be potential candidates for upgrading:

- New traffic-free pedestrian links between Leicester Square and Trafalgar Square through St Martin's Street; from Leicester Square to Chinatown and Soho along Wardour Street; from Trafalgar Square to Charing Cross Station through Duncannon Street; from Leicester Square to Piccadilly Circus via Coventry Street; from Piccadilly Circus to Oxford Street through Soho and Argyle Street; from Leicester Square to Covent Garden through Long Acre.
- New public spaces – large and small – which put people first, with seating, outside tables, fully or partly traffic-free: Seven Dials, Embankment Place, Shaftesbury Circus.
- Great squares and meeting-points transformed, like Trafalgar Square, by making at least one side traffic-free: Berkeley Square, Soho Square, Golden Square, Russell Square.
- A new pedestrian zone around Covent Garden, with all the small roads surrounding the piazza freed from traffic like the roads round Leicester Square.
- A new public space outside Charing Cross station, surrounding the great Eleanor Cross, created by clearing the taxis and delivery vehicles from the station forecourt.
- An uninterrupted river walk along the north side of the Thames, free of obstacles and missing links, all the way from the Tower of London to Westminster.
- A transformed Oxford Street replacing the long line of buses and taxis with a shuttle bus, running slowly through a mainly pedestrianised street with seating and outdoor cafes.
- A direct and easy pedestrian route from South Bank and Waterloo Bridge into Waterloo Station, clearing away all the clutter and obstacles outside the main entrance to the station.
- Intimidating gyratory systems gradually replaced with pedestrian-friendly two-way streets: the eastern part of Strand; Tottenham Court Road; High Holborn.
- A continuous garden walk along the embankment from Temple to Westminster, linking up Embankment Gardens, Whitehall Gardens, and other smaller green spaces.
- A great new traffic-free public space in front of Buckingham Palace, linking St James Park and Green Park.
- The iconic street of Piccadilly converted into two-way traffic, with wide pavements and resting points for people on foot, encouraging people to explore the historical arcades and hidden squares.
- A complete redevelopment of Bank, diverting the traffic to create a new public space at the heart of the City.
- Much of Soho converted into a traffic-free zone, with bars and restaurants encouraged to provide out-door tables and seating.

Quality Places in a World City

Community Street Audit in Covent Garden

Covent Garden is a popular destination but most visitors are unaware that they can avoid congestion at the tube station lifts by taking a walk of just 900 steps from nearby Leicester Square and enjoy the exercise and attractions on the way.

Living Streets carried out a Community Street Audit to identify improvements to promote walking as part of the Covent Garden Action Plan for Westminster City Council. The audit involved facilitated walkabouts with local residents and businesses, who were loyal to their neighbourhood and keen to have their say about problems they experienced and to find solutions.

The report identified a number of barriers to pedestrian movement including narrow footways, poor crossing facilities and wayfinding and a lack of space for the high volume of pedestrians.

Westminster City Council have followed the audit recommendations and implemented significant improvements along a key route Long Acre. The scheme has involved footway widening with high quality materials, de-cluttering, step-free junctions, improved pedestrian crossings and improved street lighting. These improvements are a direct response to the views of local people expressed during the Community Street Audit and make the environment more pleasant for all those living, working and visiting Covent Garden.

"The Community Street Audit report opened my eyes. The justification is here for me, it's all in one place."

Lydia Clarkson, Special Projects Manager

High footfall day and night

Community Street Audit identified issues and solutions

Improvements made based on Community Street Audit

Quality Places on the High Street

Sustainable Shopper Survey and Community Street Audit in Sydenham

Sydenham Road is a busy suburban high street in south London which has a range of small shops, bus stops and a railway station.

In preparation for a major scheme to improve Sydenham Road for the benefit of residents and visitors, Lewisham Council commissioned Living Streets to run a Community Street Audit with groups of local people, to look in detail at the current problems and opportunities for improvement along the main shopping street. The report identified problems and opportunities and presented a wide range of suggestions for improvement or remediation, which have informed the design of improvements which are due to be implemented.

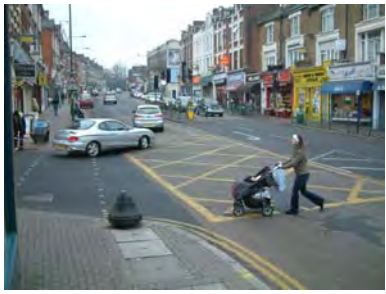
Shoppers were also interviewed as part of a sustainable shopper survey organised by Living Streets to investigate patterns of shopping behaviour amongst those visiting/shopping in Sydenham Road in terms of how they travel frequency of travel, reason for travel and the amount they spend, as well as their views on the street and shopping environment.

In the survey of 200 shoppers, 57 per cent said the high street was in need of improvement, was noisy and had too much traffic. More than half said they walked to the shops and shoppers on foot were found to spend more money overall than those arriving by car.

This survey has formed part of the business case for scheme funding and is due to be repeated after the improvements have been implemented as part of scheme monitoring for Transport for London.

"I think this is a really good report and valuable study"

Ian Plowright, Transport Strategy Manager



Community Street Audit identified issues and solutions

Shopper Survey supported the business case for funding and provided monitoring baseline

A street enhancement scheme is scheduled for implementation

Children audit their neighbourhood

Putting People First in Neighbourhood Renewal

Improving Walking Links in Brent

Residents vote on priorities at a community festival

Brent Council's neighbourhood renewal team wanted to improve the local environment and support economic development by engaging with local residents.

Living Streets were commissioned by St. Raphael's Brentfield and Mitchell Brook Neighbourhood Renewal Project to conduct a community street audit with residents. A report was produced which identified where problems and opportunities existed to improve walking and environmental conditions. The findings were presented to audit participants and other local stakeholders. Interviews were also conducted with residents in relation to specific recommendations. 80% said they would be more satisfied with their neighbourhood if walking links were improved.

Project partners visit the site of the new temporary bridge as part of a legacy event

Living Streets then developed the Walking Links project to promote good health among local residents by delivering physical improvements to provide greater connectivity to local services for residents on foot and improve the quality of life for residents affected by close proximity to the North Circular Road.

A steering group guided the improvements identified by the community street audit, including access to a park linking residential areas to the local children's centre, temple, and primary school. A walking map was produced with local children and an artist to promote walking to work, school, shopping and leisure.

The one year project generated funding for a new bridge, path and gateway improvements to a local park. Living Streets was able to develop stronger partnerships between the council, PCT and major local businesses and faith groups through this project.

"Living Streets was very successful in engaging the community in a discussion about improving the environment for walking, and then working with a wide variety of public and private sector partners to make improvements which are key to the regeneration of this area, and leveraging in a significant amount of funding"

Mekhola Ray, Head of Neighbourhood Renewal Project

Mayor's Transport Strategy – Consultation response from Living Streets

Response from Living Streets

1. About Living Streets

1.1 Living Streets is the national charity that stands up for pedestrians. With our supporters we work to create safe, attractive and enjoyable streets, where people want to walk. We work with professionals and politicians to make sure every community can enjoy vibrant streets and public spaces.

1.2 The history of Living Streets demonstrates the strength of our agenda. We were formed in 1929, as the Pedestrians Association, and have grown to include a network of 100 branches and affiliated groups, 28 local authority members and a growing number of corporate supporters. As well as working to influence policy on a national and local level, we also carry out a range of practical work to train professionals in good street design, and enable local communities to improve their own neighbourhoods. We run high profile campaigns such as Walk to School and Walking Works, to encourage people to increase their walking levels and realise a vision of vibrant, living streets across the UK.

2. Summary

2.1 We welcome the references in the Strategy to the importance of walking, public space and the need for mode shift to walking, cycling and public transport. However, overall the strategy needs a much more ambitious vision for walking, based on quality of life and enabling people to enjoy the city as a primary theme.

2.2 Walking has a key role to play in a transport strategy for London. At the heart of making London a world class city for walking is the need for:

- Leadership – and long term vision: Ambitious modal shift targets, strong political leadership and visionary outlook
- Effective Delivery: Boroughs need to be innovative and effective in their delivery of schemes, enabled and supported by TfL
- Activities and interventions on the ground: Specific schemes, projects and interventions on the ground
- Promotion and marketing: Marketing and promotion of walking through an overarching public facing campaign.

3. Responding to the consultation

3.1 We have structured this response in three parts, viz
First, answers to the questions on pages 349 to 351 of the draft Strategy;
Secondly, to emphasise and illustrate these answers, extracts from a separate submission being made to you by one of our most active borough groups: that in Southwark; and
Thirdly, specific suggestions for changes to the text of the strategy

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4. Answers to the questions on pages 349 to 351

4.1 Managing and enhancing the transport system

4.2 Managing the road network

4.3 Smoothing traffic flow

- The aim of "smoothing the flow" must be about people flow, not simply motor vehicle flow. Changes made on this basis must be empirically-informed and proportionate as between modes. For walking, improvements are needed to Londoners' everyday experience: such as overcrowded footways, inadequate crossings, street clutter and uneven surfaces.
- Current proposals to reduce the green man phase for pedestrians to smooth the flow of vehicular traffic, and the potential introduction of countdown timers are disturbing. We remain extremely concerned at any proposals that will reduce crossing time for pedestrians, increase their waiting time and contribute to their feeling unsafe. Transport for London has confirmed its acceptance that, as required by the Traffic Management Act, 2004, 'traffic' includes pedestrians. We believe that these proposals will disrupt rather than smooth traffic flow. Increasing waiting times at junctions for all road users – while reducing the pedestrian green phase to compensate for increased vehicle green time – quite markedly fails to 'smooth flow' for pedestrian traffic.
- Smoothing the flow of vehicular traffic should not come at the expense of pedestrians. Replacing the 'blackout' phase with a countdown timer is an undesirable diversion from the main issue, which is well borne out by the results of TfL's own research: that is, reducing the green man phase in favour of an increased green light phase for vehicular traffic increases the risk for pedestrians by prompting far greater tendencies to cross against the red man. Fear of traffic, and the tortuous amounts of time it can take to cross some roads in London are real barriers to people walking more short journeys – in particular older people and those with disabilities. There is double the risk to pedestrians than extra efficiencies for vehicular movement. Namely, pedestrian 'non-compliance' with the red man increases by 14 per cent; vehicular throughput increases by a mere 6.5 per cent.

4.4 Pedestrian crossings

- We need to re-connect our communities by improving pedestrian crossings. Our streets should be generally more permeable with informal crossing acknowledged and supported (as in the Strand). Formal crossings should be in place where people want to walk, and meet all accessibility standards and best practice. We need to ensure that all Londoners can cross our streets with confidence and in safety.
- The 484 pedestrian crossings across London that are not currently compliant with TfL's SQA-0064 Design Standards for Signal Schemes in London must be brought up to standard with urgency, and TfL should publish a timetable to achieve this by March 2011.

4.5 Powered two wheelers in bus lanes

- Given the hugely disproportionate, almost tenfold, casualty risk posed by motorcycles to pedestrians relative to modal share in London, Living Streets believe that the safety risks posed to pedestrians by allowing motorcycles and scooters to use TLRN bus lanes, alongside the likelihood that having powered two wheelers in bus lanes will discourage walking, far outweighs its potential "to relieve [vehicular] congestion". The Order should

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therefore be terminated at the end of the trial period, if not before, and no other order of a similar nature and effect should be made.

4.6 Road schemes

- Rather than focusing on road schemes, pedestrian pinch-points must be addressed as a specific part of "smoothing the flow"- reallocating space away from the carriageway (characterised by low rates of people flow) to the footway (characterised by high rates of people flow). Pedestrian space should not be sacrificed to accommodate more cycling- this should be done by re-allocating space within the carriageway. The underlying principle should be to use the DfT's hierarchy of provision for pedestrians and that for cyclists, which aim to ensure that conditions for these user groups are improved not at the expense of each other, but rather by reducing the dominance of motorised road users.
- Where a satisfactory balance between road users cannot easily be achieved, a framework for identifying priority between them must be applied. Principles of 'capacity to cause harm' (health, climate change, noise, danger to others and air pollution) must underpin decision-making - using the "link and place" methodology already being explored by TfL.

4.7 Integrating London's transport system and services

4.8 Walking is transport; and most journeys to and between other forms of transport include walking. It is important to consider any work on interchanges through the eyes of the pedestrian, ensuring that routes are legible, attractive, accessible and safe.

4.9 Encouraging more cycling and walking

4.10 Walking

We welcome the focus on walking within the Transport Strategy. However, we would like to see the "revolutionary" language used about cycling also used for walking, in order to reflect the Mayor's commitment to these two modes.

The current ambition for mode shift set out in the strategy is not ambitious enough. We need an ambitious, long-term vision statement on walking and public realm improvements that sets out a commitment to transform the levels of walking. Currently half of trips between 0.5 and 2km in length in London are made by car, but only 29% of them on foot. We want to see these proportions reversed as a first step to making walking the natural choice for short journeys in the capital. This should be adopted as a central plank of the Mayor's transport strategy.

The evidence is that a key consideration in choice of modes is attractiveness. TfL research identifies that nearly everyone is a potential walker and it is the mode of transport meeting most of the Mayor's objectives. Therefore walking is an obvious area to prioritise in order to achieve maximum impact for input. (See TfL research on *Attitudes to Cycling, 2008*).

We believe that a "world class city for walking" requires measures to do better than increase its share of walking by only 1% in a 20 year period.

We welcome the proposals set out in the Making Walking Count section.

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We welcome the commitment to achieve a step change in the walking experience (proposal 58) and the proposal (number 61) to raise the profile of walking. We know that existing schemes, such as Living Streets' Walk to School campaign and Walking Works campaign, already work; they should be extended.

We welcome the detail in proposal 59, in particular pedestrian access and the commitment to street audits, decluttering and the revitalisation of high streets. In addition to the proposals set out we would like to see:

- Acceptance of the emphasis placed by London Councils in their response to the Statement of Intent on improvements which put pedestrians first. We agree with London Council's belief that "transport strategy should encourage people to make smarter travel choices following a sustainable hierarchy of transport modes: putting walking above cycling, cycling above public transport, and public transport above the private car ". This is an important requirement for Making Walking Count and should, we suggest, be reflected by the addition of the following sentence at the end of paragraph 5.13.1 on page 183: "The Mayor will encourage people to make smarter travel choices following a sustainable hierarchy of transport modes: putting walking above cycling, cycling above public transport, and public transport above the private car ".

- A greater proportion of the TfL budget should be invested in walking, with a specific objective to "invest to save" as part of managing demand for private and public transport travel. Relatively simple changes and good maintenance and asset management can bring disproportionate benefits for pedestrians compared with big flagship schemes. Health budgets must also be more actively targeted to support walking project delivery, reflecting the huge positive impact that active travel has on the public's health.

- The active promotion of walking and public enjoyment through a programme of events and activities – such as car free days, events and incentive schemes.

- Acknowledgement of the value of using the voluntary and charity sector to audit requirements for streetscape improvements and involve communities.

- Use of the Olympics to establish a true legacy for Londoners - a once in a generation opportunity to encourage everyday activity and transform the way we think about the city and how we interact with it. Regular and prolonged car-free events and festivals should become the norm, with trial pedestrianised areas showing how our city can be improved for everyone.

- Comparison of London's Walkability with other cities and benchmarking our own performance, so we can see how well we are doing and where we need to focus resources.

- A strong multi-stakeholder steering group on walking and public realm to advise and support the vision of London as a world class walking city, and support delivery partners such as voluntary sector organisations.

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4.11 Cycling

Pedestrians and cyclists have common interests in reducing the dominance of motorised traffic. We feel that the 5% target for cycling 20 years from now is woeful. Given the efforts that cities such as Copenhagen have gone to drive up the modal share for cycling and the Mayor's own commitment to it, we believe the creation of a robust motor traffic-free cycling network could certainly deliver a modal share of 10%.

Cycle hire scheme and footways
We see the knock-on benefits for walking in London that the Cycle Hire Scheme will bring, by slowing down traffic, reducing car use and revitalising our streets. However, one of the other ways that the scheme will impact on pedestrians is through the construction of some of the cycle docking stations on pieces of existing footway. The use of such locations should be kept to a minimum. Where such locations are sought, we would stress the need for a strict set of criteria to be met in the selection of such locations.

We welcome moves to provide cycle training to people of all ages. While pedestrians and cyclists have a huge amount in common, not least from a road safety perspective, they are also very different modes of transport and mixing them needs care. In particular there should be an emphasis on

- Stronger enforcement by local police forces of cycling offences, particularly pavement cycling, including targeted crackdowns where appropriate;
- When designing off-road routes for cyclists, where sufficient width is available, segregated use is generally preferable to shared use;
- Our parks and canal towpaths should be safe, welcoming places for enjoyment and relaxation – for everybody.

4.12 Improving Safety and Security

We find the Mayor's target of a 63% reduction in KSIs by 2017 from the baseline 1994-1998 figures (a 30% reduction from 2008 levels) extremely disappointing and believe that this target can and should be more ambitious. We would also suggest that the current strategies will not deliver these targets. Progress in the early years after the 1994-1998 baseline was good but reductions in road casualties are slower now that the low hanging fruit of road casualty reduction has been plucked by the widespread introduction of 20mph zones in residential areas. We suggest that only an approach that targets road casualties along the whole lengths of the main roads (TfL and borough ones) will now deliver the reductions that are required.

With this in mind we welcome the commitment (in proposal 64) to develop a new Road Safety Plan and public engagement on road user behaviour. We ask for this to include a Pedestrian Safety Action Plan as is currently being prepared for Cycle Safety, in order to focus on the one fifth of KSIs accounted for by pedestrians, and especially those in the most deprived areas (paragraph 504).

We would also like to see the specific additions of:

- 20 mph speed limits across London. Not only will this drastically reduce injuries, but will also provide a more civilised climate which will encourage walking and cycling. This

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should be reflected in the commitments for improving road safety in paragraph E29 on page 22. TfL and boroughs should work together to extend 20 mph limits throughout the capital and with the Metropolitan Police to enforce the limits. This is the single biggest measure to make our streets safer and more civilised.

- A radical reduction in the numbers of HGVs on London streets. This can be an extension of a successful ODA programme for the 2012 Olympic development, which has seen 57% of materials by weight delivered to site by more sustainable modes (rail or river). HGVs used in London should also be fitted with mirrors that better enable the driver to see pedestrians and cyclists alike, going beyond the legal requirements. Mirrors to enable drivers of lorries with high cabs to see pedestrians immediately in front of them are especially important.

4.13 Improving London's Environment

We very much welcome the strategy's focus on Better Streets (proposals 82-84)

Transport provision in London is not balanced. As the population of the capital continues to rise, so the space afforded to different modes needs to be reconsidered on an ongoing basis. Flagship initiatives to re-allocate space to pedestrians should become principles firmly embedded in both TfL and borough maintenance and improvement schedules. Opportunities for pedestrian-friendly and fully pedestrianised streets need to be actively searched out. The "West End" provides a particular opportunity for an ambitious programme of pedestrianisation ahead of the 2012 Olympics.

We need to connect the islands of great public space in central London by developing a network of pedestrian-friendly streets and public spaces, free of barriers to walking and free of traffic domination, where people on foot can relax and feel comfortable. The network could be built up on a step-by-step basis, starting with a central hub such as Leicester Square, and linking it to important nearby destinations like Trafalgar Square, Covent Garden and Chinatown. From there, the network would extend outwards to take in the busy pedestrian highways, the main tourist attractions, the great parks, the river, and central London's mainline stations.

Outside central London, our town centres and high streets should be well designed, liveable and welcoming places. We need to transform the quality of the pedestrian environment and revitalise our village and town centres all across Greater London.

We need to assess the walkability and permeability of local neighbourhoods and town centres and put in place improvements so that more people walk for local trips, supporting local shops and services. The London Plan and Transport Strategy and borough plans must recognise the importance of local town centres, with a stronger emphasis on local facilities to reverse the demand for car travel for work, leisure and retail trips.

The quality of the pedestrian experience on Oxford Street is a national scandal. We need a phased pedestrianisation of Oxford Street, transforming it into a world class destination befitting its status as the country's most famous shopping street.

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'Naked streets' principles should form a key part of TfL and borough planning; with an ambitious and staged programme of decluttering, and a better balance between different transport modes. Although high profile flagship projects (e.g. Exhibition Road) are an important way of making improvements, we also need stronger promotion of cheaper and less radical approaches. Recent schemes such as those on Dagenham Heathway and Walworth Road need to be replicated elsewhere, as examples of improvements that are applicable to London's high streets and neighbourhoods.

The immediacy of the risks posed by London's poor air quality means that a green technological revolution is not sufficient. Rather, motor traffic reduction and the role of walking must be seen as an essential tool and measures to achieve it must be introduced as a priority.

The promotion of car clubs and car sharing is welcome (proposal 90). Evidence shows that car clubs dramatically reduce car ownership and use, and encourage more sustainable travel behaviour, including modal shift to walking.

4.14 Reducing transport's contribution to climate change and improving its resilience

As we said in our response on Guidance on Developing the Second Local Implementation Plans, we do not believe that ground based transport can sufficiently contribute to the Mayor's Climate Change obligations and objectives (reductions in carbon dioxide emissions of 35% by 2025 and 80% by 2050) without a greater modal shift to sustainable modes and reduction in journey numbers and lengths than set out in the MTS2 and the LIP drafts. For walking, this will require a much greater and more widespread improvement in conditions for pedestrians, even than set out in "Better Streets" (good as this is).

Indeed, we believe that the proposals for smoothing traffic flow (Proposal 101) will increase carbon emissions. While vehicles waiting with engines running for traffic signals to change obviously emit CO_2, smoothing vehicle flows will progressively increase levels of traffic and carbon emissions. Ultimately the delays to traffic at the new, higher levels will generate more carbon emissions.

Walking has a major long-term potential to reduce climate change. This arises not just from the modest increase in modal share (1%, or, we argue, more), but from the synergy of walking and the more compact development made possible by more walking. This synergy needs to be exploited to help fill the Policy Gap identified in Figure 58 on page 222 of the strategy.

4.15 Managing the demand for travel and Road user charging for economic and environmental aims

We welcome the focus on mode shift to walking (proposal 115). This needs to be locked in by measures such as reallocation of carriageway space, to avoid freed up carriageway space simply being occupied by "new" private vehicles.

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We support the establishment of car free developments in London – not simply preventing tenants and residents in some developments obtaining parking permits, but building or retrofitting developments which are truly car free, as seen in many successful initiatives in mainland Europe. We would like to see this reflected in the strategy.

In any large city which aspires to provide a modern and integrated transport system, pricing of some sort (be it congestion charging, road-user charging and/or workplace parking levies) is essential to manage demand to travel. Such measures help to restore a balance to transport systems that to date have not adequately (if at all) priced in the environmental, health and social costs of private vehicle use to the broader population. In particular, by hypothecating the revenues raised towards investment in sustainable and public transport alternatives, the external costs of private vehicular modes can to some extent be mitigated. Road pricing should not, however, be couched simply in terms of managing demand. The idea is not to stifle any desire to travel, but rather to encourage people to undertake their journeys in ways that are more sustainable and active, and that are less likely to add to the congestion that costs London so dearly.

Road user charging would be an extremely effective short-cut to enable the Mayor to meet many of his objectives. Its use had a tremendous beneficial effect in central London and its introduction throughout the London boroughs would reduce congestion, reduce road casualties, improve conditions for walking and cycling and help people to use local rather than more distant services

Our view of pricing would be the same irrespective of the aims of economic development in outer London – pricing should be seen as a measure that is suited to any urban, and even national, road network and not simply to city centres. For Living Streets, the introduction of pricing in any ‘strategic Outer London Development centres’ must be seriously considered as a way to encourage modal shift in outer London and to prevent these hubs from becoming congested, unattractive and polluted.

4.16 Western Extension zone

Congestion Charging redresses the modal priority that has been afforded to motor vehicles in London over time and promotes sustainable transport choices in London. This in turn fosters a healthier and more civic-minded population, and also improves the economic potential of the city. London has led the way on this over the last six years - becoming the only major city in the world to achieve a shift away from private car use to public transport, cycling and walking. In line with this shift, between 2001 and 2006/7 walking’s modal share of weekday trips in London (i.e. those trips taking place on the days that the Congestion Charge operates) increased from 30 to 31 per cent. Living Streets urges that this notable success must be supported by retaining the Western Extension.

We believe that the Western Extension delivers significant benefits to the quality of life of local people through reduced congestion and improved air quality and that its removal flies in the face of other objectives such as climate change and a more liveable London.

4.17 Priorities

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- The measures set out in Making Walking Count. Walking is a key ingredient across all areas of the strategy.
- Setting more ambitious targets for mode shift to walking, along with revolutionary commitments to make London a world class walking city. The language used in the document encouraging walking is welcome. However there need to be more ambition and practical measures.
- Safer streets, achieved primarily through control of vehicle speeds.
- Making London's town centres attractive for people on foot.

4.18 Are there any areas proposed that you disagree with?

- The consequences that re-phasing traffic lights as part of 'smoothing the flow' will have on pedestrians.
- The removal of the Western Extension zone.
- Deferment of Phase 3 of LEZ from 2010 to 2012

5.0 The Mayor's transport strategy: a Living Streets borough group's perspective

We are a community group called Southwark Living Streets. We have an active membership of over 70 people in the London Borough of Southwark and are the borough group of the national charity Living Streets. We work to improve the public realm and conditions for pedestrians in Southwark.

We focus our response to the Mayor's Transport Strategy on the ambition to create better streets (5.17) and the methods to be employed to do that. We have worked closely with a number of communities in Southwark, many of whom are keen to create better streets and vibrant town centres exactly as the Mayor's strategy describes. Examples of these town centres are Camberwell, Peckham and Borough High Street. In each of these town centres there is a common theme of their sitting on roads that are part of the TLRN or the SRN, over the management of which TfL has either a total or dominant say. It is noticeable just how skewed pedestrian and cyclist casualties are to the main roads.

We understand fully the need to preserve these roads as important corridors for vehicle movement but at the same time local communities are very badly affected by the negative effects these roads have on the town centres that they are trying to regenerate.

Foremost in relation to this are the speeds at which vehicles are permitted to move through these spaces. Obviously, vehicle speed is only part of the problem but it is a major issue. Over the years there has been little support from TfL to attempt to reduce vehicle speeds on the network and especially in these town centres. The results of this lack of speed management are alarmingly high pedestrian and cyclist casualties and a domination of these town centres by vehicles to such an extent that it is hard to encourage people to spend any more time than they have to in these locations. As a result, places like Camberwell, Peckham and even Borough High Street (one of London's most historic streets) end up having purely functional roles as transport routes and interchanges rather than being able to offer the full range of amenities and comfort that people expect from a town centre. People have little incentive to spend their time and money in the town centres where they live and work.

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It is revealing that in the strategy for Better Streets and more vibrant town centres (which are within walking and cycling distance of where most people live and work) TfL is not proposing to do far more to curb vehicle speeds. In Figure 53 on page 206, the graphic illustrates a number of changes which may contribute towards a vibrant town centre but omits to confirm the benefits of lower vehicle speeds. In the case study on page 207 on The Cut (and here there are strong parallels with the Walworth Road) one of the things that has made the scheme so successful is the almost halving of vehicle speeds.

Reducing vehicle speeds succeeds in both reducing casualties and improving the vibrancy of town centres. TfL itself supported the redevelopment of Walworth Road, where many of the aims described in the Strategy have been achieved. The result of that redevelopment is a town centre that still operates as a major traffic corridor but now with wider pavements, easier crossing, lower vehicle speeds and very few collisions.

Many studies now support the effectiveness of 20mph speed limits. Most recently (December 2009) the report of the Department for Public Health and Policy at the London School of Hygiene and Tropical Medicine demonstrated that the introduction of 20mph speed limits is associated with a 41.9% reduction in road casualties*. Our town centres are places where people need to be able to move around safely and feel safe. Reducing vehicle speeds would be a major contribution to this.

We understand the Mayor's desire to treat town centres holistically and to make a range of improvements to them. Lower speeds can be an important part of these schemes. The current recession and the tightness of funding for the next few years is likely to mean that funds for town centre schemes and area-based schemes will be at a premium and that few town centres will be improved in this more holistic way in the short to medium term. Reducing vehicle speeds, for example by using average speed camera technology, is very much a quick win that will save lives and improve the liveability of our town centres. Camera based enforcement also has the advantage of avoiding the need for vertical deflections on routes that are heavily used by buses and emergency vehicles.

We would recommend that the Transport Strategy should support the creation of vibrant town centres with clear policies for speed reduction on the TLRN along streets that are heavily used by pedestrians. This will contribute to many of the Mayor's other agendas such as improving health by encouraging more walking and cycling, and countering climate change by reducing the numbers of short car journeys as people feel more confident to use their own local town centres. Most of all it will reduce drastically the number of pedestrians and cyclists that are killed or seriously injured on the roads and streets that TfL controls. These are the most heavily used by those engaged in these active forms of travel.

* C. Grundy et al. (2009). 'Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis' British Medical Journal; 339: b4469 http://www.bmj.com/cgi/content/full/339/dec10_3/b4469

6.0 Specific suggestions for changes to the text of the strategy

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Page 20 E12. In the diagram, add, after "urban realm…" : " ,slower vehicle speeds" (and on page 206)

Page 82 after paragraph 147. Add a new paragraph: "This planning process needs to assess the opportunities for access by walking and cycling to new developments from nearby residential areas, with the aim of reducing the need for travelling."

Page 83 Policy 9 b) Add, before "design ad layout": "location,"

e) Add, after "improvements": ",including walking and cycling,"

Page 102 Paragraph 220, penultimate sentence Add, before ")": ",and one which not only ignores emissions from aircraft over 1000 metres high but also is associated with other emissions, approximately doubling the impact on the climate"

Page 102 Policy 24 Add, after "DfT: "DECC" (and in the Glossary)

Page 126 Policy 13 Add, after "working with": "DfT"; and after "amenities": "safe and convenient walking and cycling access within, and in the immediate vicinity" (In addition to Proposal 45 b) and Proposal 59 j))

Page 150 Paragraph 5.6.2 Add, after "journey times": "for all road users, and taking into account any adverse consequences for other road users" (and, consequentially, in proposal 101)

Page 155 Proposal 34 Add: "f) The impact on climate change"

Page 183 Proposal 59 Add, after g): "h) reducing the danger from motor vehicles"

Page 187 There appear to be inaccuracies in Figure 45. The line in brown is a straight line – if this is the index line, why is it not set at 100? It is difficult to link the colours to the casualty type owing to their similarity.

Page 205 Paragraph 564 Add, before "cycling": "walking and"

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Living Streets is the national charity that stands up for pedestrians. With our supporters we work to create safe, attractive and enjoyable streets, where people want to walk.

London Assembly investigation into making it easier and safer to walk in London

Response from Living Streets

1 About Living Streets

1.0 Living Streets is the national charity that stands up for pedestrians. With our supporters we work to create safe, attractive and enjoyable streets, where people want to walk. We work with professionals and politicians to make sure every community can enjoy vibrant streets and public spaces.

1.1 The history of Living Streets demonstrates the strength of our agenda. We were formed in 1929, as the Pedestrians Association, and have grown to include a network of 100 branches and affiliated groups, 28 local authority members and a growing number of corporate supporters. As well as working to influence policy on a national and local level, we also carry out a range of practical work to train professionals in good street design, and enable local communities to improve their own neighbourhoods. We run high profile campaigns such as Walk to School and Walking Works, to encourage people to increase their walking levels and realise a vision of vibrant, living streets across the UK.

1.2 In London Living Streets works on its own and in partnership with others to create safe, attractive and enjoyable streets where people want to walk. We work particularly closely with Walk England and maintain close relationships with cycling organisations such as the London Cycling Campaign.

2.0 Responding to the consultation

2.1 Living Streets welcomes the London Assembly investigation into making it easier and safer to walk in London.

2.2 In response to the questions posed in the call for information:

3.0 Which of the Mayor and TfL's current initiatives to promote walking are resulting in more people walking or which might deliver a sustained increase in walking in the future? Which should be prioritised in 2011 and why?

3.1 Walking plays a vital role in improving the health of Londoners, reducing carbon emissions, improving air quality and the local environment and improving quality of life and better neighbourhoods. Yet to date there has not been a comprehensive approach to walking, and to investment in walking, despite the fact that TfL research[i] found that walking is easily the most appealing transport mode. 2008 TfL research[ii] also found that over two thirds of Londoners are receptive to walking more over the next year (as opposed to one in four who were receptive to cycling more) and a third would definitely consider walking more (as opposed to one in eight in respect to cycling).

3.2 A comprehensive approach to walking should prioritise providing a quality built environment where people want to walk and promoting walking as a means of transport, ensuring that these are underpinned by supportive policies and activities.

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This investigation, the Mayor's Year of Walking and the Mayor's Transport Strategy all provide an opportunity to achieve this. Living Streets believes that it is crucial that this opportunity is grasped.

3.3 Getting the quality of the built environment right is crucial to making streets and places where people want to both walk and spend time. "The design and management of the built environment can create barriers to physical activity – or they can create opportunities for activity that make an active lifestyle an attractive and compelling choice"[iii]. TfL research[iv] also showed that the top three potential motivators for walking more included new and improved public spaces with new seating, new and improved crossing facilities at junctions alongside new and improved walks for pleasure. Involving the community and auditing the quality of streets is crucial to getting the quality of the built environment right.

3.4 Promoting walking is important to ensure it is seen by the public as a viable and easy form of transport in an environment where private and public transport messages tend to dominate. Currently half of trips between 0.5 and 2 km in length in London are made by car, but only 29% of them on foot[v]. Nationally, Government statistics show that walking to school is now at an all time low. Less than half of primary school children now walk to school, with 43% travelling by car.[vi] This is set against a backdrop where, in England, only one in three adults meet minimum recommended level of physical activity; for older people it is less than one in five. Two in three adults are obese or overweight[vii].

3.5 Underpinning this focus on the quality of the built environment and promoting walking is a need to ensure that the Mayor and TfL take a holistic approach to encouraging walking and investing in the built environment. Their full range of transport plans and policies should be joined up to ensure that they are all acting to promote walking and do not contain measures that would disadvantage it.

3.6 As a comprehensive approach to walking in London has not previously existed, initiatives to promote walking can end up either not being supported in a long-term way or not been rolled out across London, and in many cases have therefore not reached their full potential. An integrated approach is needed, focused on long term investment in walking, including setting more ambitious targets for a mode shift to walking.

3.7 Certainly, a greater proportion of the TfL budget should be invested in walking, with a specific objective to "invest to save" as part of managing demand for travel by private and public transport. Relatively simple changes, combined with good maintenance and asset management, can bring disproportionate benefits for pedestrians and other users of the street compared with large flagship schemes. Health budgets must also be more actively targeted to support the delivery of walking projects, reflecting the huge positive impact that active travel has on the public's health. In 2009 the Chief Medical Officer said, ***'The potential benefits of physical activity to health are huge. If a medication existed which had a similar effect, it would be regarded as a "wonder drug" or "miracle cure"[viii].'***

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3.8 As Identified in a recent report, almost all studies on the relative costs and benefits of active travel interventions (UK and beyond) report highly significant economic benefits of walking and cycling interventions, with a benefit-cost ratio averaging 13:1. For solely UK interventions, the average figure is higher, at 19:1.[ix] This reflects the diversity of policy goals that can be achieved through active travel and is of particular importance in maintaining London's progress on enhancing the physical environment, improving public health and boosting commerce and quality of life through successful placemaking at a time of financial restraint.

3.9 Current initiatives that Living Streets are particularly aware of include:

3.10 **The Mayor's Better Streets Guidance**: this is a very welcome initiative which applies Naked Streets principles and shows how small measures and larger planned redevelopments can make London's streets and unique public squares more user friendly and attractive. However, the challenge now that the guidance has been produced is to ensure that boroughs are now working to apply these principles. This should clearly be a priority in terms of its ability to create streetscapes that encourage walking.

3.11 We understand that £180 million is planned to be invested in **street and public space projects** that will be delivered by 2012/13, including the redevelopment of Leicester Square, the introduction of diagonal crossings in Oxford Circus, and a number improvements to town centres across outer London, including Richmond, Sutton and Woolwich.xThis is also very welcome and robust evaluation of project outcomes across a wide range of policy areas is essential to ensure that the economic case continues to be made for similar projects, rather than allowing those that proceed to be seen as one-off luxuries.

3.12 **Legible London** is a good initiative and we welcome the outer London pilot of the scheme in Richmond and Twickenham town centres. The initiative clearly needs to be rolled out across London as opposed to just existing in certain areas. As TfL's webpages on Legible London themselves say, "… many people are put off by inconsistent signage and confusion about distances between areas[xi]".

3.13 We welcome the Mayor and TfL's plans to **restore two-way working** to Piccadilly and improve pedestrian amenities in Piccadilly and Piccadilly Circus. We hope this will be the start of a systematic programme to phase out other gyratory systems around the West End (and indeed in outer London as well) which blight the city and are off-putting for pedestrians.

3.14 We are pleased to see the introduction of the **diagonal crossing at Oxford Street**, which has been broadly welcomed by pedestrians and has made this junction considerably easier for pedestrians. We hope the Mayor will now go on to identify other multi-crossings (like Cambridge Circus and St Martins Cross) which might benefit from the same treatment.

3.15 We endorse the views expressed in the report "**Streets Ahead**" (carried out by the GLA Transport Committee) including the description of Oxford Street as "a totally unacceptable environment for pedestrians and residents", and we call on the Mayor to

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implement the report recommendations. We welcome the two 10% **reductions in bus volumes in Oxford Street** carried out this year and last, and hope that this will be the basis for the Mayor and TfL to carry out further and more far-reaching reductions in future years.

4.0 What, if any, other initiatives should the Mayor and TfL adopt to make it easier and safer to walk in London and why? Please provide as much detail as possible, including what the initiative involves, where it is already happening (e.g. in London, elsewhere in the UK and/or abroad), which organisation(s) are responsible, its cost and how it is funded, and its measurable impact e.g. how many more people are walking as a result of the initiative.

4.1 Primarily, the Mayor should lend his full support to both the Year of Walking and its longer-term legacy. Without substantial and ongoing mayoral and TfL support in the form of enthusiastic and committed leadership and investment, there is a danger that the Year of Walking and the subsequent approach to walking in London will not be ambitious and initiatives will not be adopted on a borough-wide basis. A starting point would be for the Mayor to very publicly express his commitment through the year of walking and beyond to make London a world class walking city, encouraging and expecting London boroughs to do the same.

4.2 Please also refer to paragraphs 3.1 to 3.15 here. Broadly, initiatives identified as successful should be invested in and pursued.

4.3 In terms of Living Streets initiatives that we feel are beneficial and could be further adopted and supported:

4.4 Living Streets' **Community Street Audits** involve working with groups of stakeholders, including local residents and businesses, to identify improvements which will create a safe, attractive and enjoyable environment for all users. Living Streets has audited walking routes in major cities, busy town centres and residential areas, particularly London. The resulting report has successfully secured funding for short term improvements to the walking environment and also contributed to masterplans for longer term projects. Improving the quality of streets via street audits not only helps create better streets for people to enjoy and spend time in but also acts to build community links bringing businesses, community groups, schools and individuals together. Shoppers interviewed as part of a sustainable shopper survey organised by Living Streets to investigate patterns of shopping behaviour amongst those visiting/shopping in Sydenham Road prior to work taking place to improve the street showed that in a survey of 200 shoppers, shoppers on foot were found to spend more money overall than those arriving by car.

4.5 The Improvement and Development Agency (IDEA) recognised the Living Streets Community Street Audit process as, "good practice" and referred to Living Streets as, " a vital ingredient to success". The training for Community Street Audits run by Living Streets has also achieved accreditation from the Homes and Communities Agency.

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4.6 Examples of street audits are included in **appendix B**.

4.7 Please find the write up of the sample audit organised for the London Assembly investigation into making it easier and safer to walk in London in **appendix A**.

4.8 The London Borough of Southwark have now embedded auditing into their processes and commit that when a street is improved in Southwark, they will make sure that engineers and residents work together. In other boroughs, community street audits tend to be more ad-hoc. Most recently, Living Streets has been working in LB Bexley on a walkability audit, LB Redbridge on a street review and LB Brent on a signage scheme.

4.9 Our **Walk to School** campaign was established in 1994 and encourages parents, pupils and teachers to make the journey to and from school on foot. The campaign has the support of the majority of local authorities in England, reaching 1.3 million children and their parents and carers every year.

4.10 As part of Walk to School, Living Streets WoW (Walk Once a Week) is a simple and effective scheme that encourages parents and pupils to walk to school at least once a week throughout the school year. London Schools and boroughs can buy sets of themed badges and wallcharts from us (amongst other resources) – one for each month of the academic year.

4.11 WoW is the largest regular walk to school reward scheme in the world with over 212,000 pupils currently taking part. Children record how they travel to school and if they walk at least four times a month, they receive a badge, all of which are highly collectable. The badges run from September to July and are designed by the children themselves in a national competition which runs across the UK. Living Streets sets a theme each year, and this academic year (2010/11) it is 'My Walk to School'.

4.12 In an recent external evaluation[xii], just under a fifth of pupils surveyed, reported that they started walking because of WoW. This success is set against a backdrop of a record low in the overall numbers of children walking to school. To varying extents every London Borough takes part in WoW and 212,000 pupils take part in England alone. Evidence suggests that implementing the scheme leads to a significant number of children changing the way they get to school, from being dropped off in the car to walking**.** Some of the most successful schools have made links between this process and school travel planning, involving pupils in auditing the local walking environment.

4.13 For secondary schools, in May 2010 Living Streets launched a resource called Free Your Feet. This intervention comprises of a week-long walking challenge, posters for school, a presentation for assemblies, cards extolling the benefits of walking and a competition where students can win a prize for participating. The main aim of this intervention is to increase walking to school using appropriate language for this age group. In May 2010, over 36,000 students took part across the country – with 15

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schools in London taking part. Living Streets will have 300 free 'Free Your Feet' school packs that will be made available to schools across the UK. Living Streets' Free Your Feet is part of a portfolio of projects being delivered by a consortium of the leading walking, cycling and health organisations and is funded by the Big Lottery Fund. Living Streets are also planning to run a set of roadshow assemblies at 10 London schools in 2011, which will be another intervention to increase walking to school through promoting the benefits of walking in a fun and educational way. This intervention is currently subject to funding.

4.14 Living Streets also runs Walk to School Week in May and Walk to School Month in October. Walk to School Week and Month are action-packed awareness periods. We encourage parents, teachers and local authorities to run fun events and activities to raise awareness about walking to school. The events are intended as a focus for schools to help to kick-start regular walking. DfT are funding a Walk to School co-ordinator post until March 2011. In the past, WoW received financial support from TfL, but no longer receives any funding for this or other walk to school initiatives.

4.15 Living Streets **Walking Works** campaign aims to get workers walking more in their daily lives.

4.16 The campaign is part of a portfolio of projects being delivered by a consortium of the leading walking, cycling and health organisations and is funded by the Big Lottery Fund and London Councils.

4.17 Walking Works aims to encourage more people to walk to and from work, and to walk more during their working day. This is done by running events such as Walk to Work Week, Walk Champion schemes and by giving online support to people who pledge to walk more. As part of their campaign, we work directly with businesses to help them promote walking and encourage their employees to use walking as a way to travel actively. In 2010 the Walk to Work event, which is two years old, engaged over 10,000 individuals and 700 workplaces, including 31 London boroughs. Evaluation showed that respondents were, overall, walking more during the week, particularly against walking to work, from work and at lunchtimes. Overall, respondents said they would walk more often after the event.

4.18 Aspects of Walking works have received funding from TfL in the past, though future funding is not committed.

4.19 In terms of international initiatives:

4.20 Further work could be done on building the evidence base for walking initiatives both in London and internationally. The quality of pedestrian infrastructure and the walkability of neighbourhoods are becoming increasingly evident as factors on which cities are judged by residents, visitors, developers and commercial interests worldwide. A recent and striking example worthy of investigation is **New York's Plan NYC programme**, spearheaded by the Mayor, which sets out a long-term vision for better public realm and includes targets such as halving annual traffic fatalities. Within a very short time, a new street design manual was put in place and a range of highly visible flagship projects put in place, including the simplification of motor traffic routes

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and integration of high-quality pedestrianised public space at iconic places such as Broadway, Madison Square and Times Square[xiii][1]. From early data, practitioners reported some impressive outcomes, with one revamp attracting over 80% approval ratings from users of the space and a key stretch of Broadway experiencing a 50% reduction in traffic related accidents[xiv][2]. Specific suggestions for similar flagship projects in London are given below.

4.21 Another aspect of the New York vision is to ensure that every citizen lives within a ten-minute walk of an area of public open space[1][3]. This is similar to a policy commitment in place in Copenhagen and builds on Living Streets' policy call on **walkability** – defined as ensuring that housing is within walking distance of a pint of milk - as a key planning test for all new and retrofitted housing developments. Planning of neighbourhoods on this basis will make a tangible difference to quality of life and should be made explicit in planning guidance. We need to assess the walkability and permeability of local neighbourhoods and town centres and put in place improvements so that more people walk for local trips, supporting local shops and services. The London Plan and Transport Strategy and borough plans must recognise the importance of local town centres, with a stronger emphasis on local facilities to reverse the demand for car travel for work, leisure and retail trips.

4.22 In terms of further initiatives that should be adopted:

4.23 We want to see acceptance of the emphasis placed by London Councils in their response to the Mayor's Transport Strategy Statement of Intent on improvements which put pedestrians first. We agree with London Councils' belief that "transport strategy should encourage people to make smarter travel choices following a **sustainable hierarchy of transport modes**: putting walking above cycling, cycling above public transport, and public transport above the private car". This hierarchy is also reflected in the DfT's Manual for Streets guidance.

4.24 The active promotion of walking and public enjoyment through a programme of **events and activities** – such as car free days, events and incentive schemes.

4.25 Acknowledgement of the value of **using the voluntary and charity sector** to audit requirements for streetscape improvements and involve communities.

4.26 **Use of the Olympics** to establish a true legacy for Londoners - a once in a generation opportunity to encourage everyday activity and transform the way we think about the city and how we interact with it. Regular and prolonged car-free events and festivals should become the norm, with trial pedestrianised areas showing how our city can be improved for everyone.

4.27 **Comparison of London's walkability** with other cities and benchmarking our own performance, so we can see how well we are doing and where we need to focus resources.

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4.28 A strong multi-stakeholder **steering group on walking and public realm** to advise and support the vision of London as a world class walking city, and support delivery partners such as voluntary sector organisations.

4.29 **Public realm champions** at councillor and senior officer level should be adopted by London Boroughs. The potential of this approach has been demonstrated in LB Southwark and RB Kensington and Chelsea, where a focus on public realm has helped transform key borough streets and ensured a joined-up approach that helps prevent clutter and promotes walking friendly streets.

4.30 Ensure that **walking is not disadvantaged** by the Mayor's efforts to smooth traffic flow in London:

- The aim of 'smoothing the flow' must be about people flow, not simply motor vehicle flow. Changes made on this basis must be empirically informed and proportionate between modes. For walking, improvements are needed to Londoners' everyday experience of movement, such as through tackling overcrowded footways, inadequate crossings, street clutter and uneven surfaces.
- Current proposals to reduce the green man phase for pedestrians to smooth the flow of vehicular traffic, and the introduction of countdown timers are disturbing. We remain extremely concerned at any proposals that will reduce crossing time for pedestrians, increase their waiting time and contribute to their feeling unsafe. Transport for London has confirmed its acceptance that, as required by the Traffic Management Act, 2004, 'traffic' includes pedestrians. We believe that these proposals will disrupt rather than smooth traffic flow. Increasing waiting times at junctions for all road users – while reducing the pedestrian green phase to compensate for increased vehicle green time – quite markedly fails to 'smooth flow' for pedestrian traffic.
- Smoothing the flow of vehicular traffic should not come at the expense of pedestrians. Replacing the 'blackout' phase with a countdown timer is an undesirable diversion from the main issue, which is well borne out by the results of TfL's own research: that is, reducing the green man phase in favour of an increased green light phase for vehicular traffic increases the risk for pedestrians by prompting far greater tendencies to cross against the red man. Fear of traffic, and the tortuous amounts of time it can take to cross some roads in London, are real barriers to people walking more short journeys – in particular older people and those with disabilities.

4.31 We are also concerned at the potential impact on walking of TfL plans to remove 145 traffic lights and their ongoing signal timing reviews at a rate of 1000 a year.

4.32 We are concerned that the measures responded to in 4.29 and 4.30 may undermine or at least reduce the success of the Year of Walking by discouraging walking.

4.33 **20 mph speed limits across London**. Not only will this drastically reduce injuries, but will also provide a more civilised climate which will encourage walking and cycling. TfL and boroughs should work together to extend 20 mph limits throughout the capital, including on parts of the Transport for London Road Network where

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appropriate, and with the Metropolitan Police to enforce the limits. This is the single biggest measure to make our streets safer and more civilised.

4.34 Walking has a major long-term potential to reduce climate change. This arises not just from increasing modal share but from the synergy of walking and the more compact development made possible by more walking. It is also important to ensure good air quality to help promote walking. The quality of our air is becoming a major health problem at local, national and international levels. Asthma is on the increase and we have consistently failed to meet our international targets for air quality (having yet to meet our 2004 deadline). Measures must be taken to ensure that London meets its air quality targets. If implemented, we believe the removal of the Western Extension Zone (WEZ) of the Congestion Charge would increase motor traffic and consequently CO_2 and other air pollutants, exacerbating the current problem and, according to research by the Campaign for Clean Air in London, causing air quality standards to be breached in some areas where they have previously been attained.

4.35 Please see **appendix E** for Living Streets' response to the Mayor's Transport Strategy, containing further detail on specific measures recommended for adoption particularly with regard to road safety.

5.0 What, if any, other measures should the Mayor and TfL take to ensure the 'year of walking' delivers a sustained increase in walking?

5.1 Town Centre Challenge: the Mayor's Transport Strategy specifically envisages an array of improvements that will lead to better streets and more successful town centres. The strategy also envisages access on foot to these town centres to be a key test for how successful they are.

5.2 There is, however a long way to go in our town centres, many of which are blighted by speeding and dominating traffic, poor quality and congested pavements, infrequent crossings, low grade orange lighting designed for vehicles and not people, poor quality facilities (such as seating) and a lack of greenery. Most town centres are a far cry from exemplars such as The Cut in Southwark, where almost all of these issues have been successfully addressed. Everyone wants to see vibrant and flourishing town centres at the heart of local communities. Our town centres should be the economic, social and cultural core of the communities in which we live.

5.3 We are proposing creating the Town Centre Challenge for London, whereby Local Authorities will be invited to select their town centres that are most in need of improvement against specific criteria. A Year of Walking fund will be established to make improvements that conform to the five stages to improve streets (figure 55 on page 219 of the Mayor's Transport Strategy).

5.4 Ten participating town centres would be announced in early January 2011 and the aim would be to carry out stages 1 to 3 of the 5 stages of 'Better Streets[xv]' guidance improvement in each of our 10 selected town centres during 2011. By the end of 2011, therefore, these town centres would have experienced a tidy up, a decluttering and the relocation/merging of functions. In parallel to these immediate changes, we would also

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be setting in train stages 4 and 5 of the improvement process, namely rethinking traffic management plans and recreating the street.

5.5 These projects would, therefore, deliver immediate benefits in the Year of Walking itself and, just as importantly, would plan for a longer term legacy to address key parts of the mayor's objectives such as encouraging sustainable travel, combating climate change and most importantly creating walkable and flourishing town centres.

5.6 Streets for People: "Cultures and climates differ all over the world, but people are the same. They will gather in public if you give them a good place to do it."[xvi]

5.7 As a measure to promote a longer term culture shift in how Londoners think about our streets and our public realm generally, we are proposing a contribution to the 'Year of Walking' consisting of **carefully selected street 'closures' - or rather, openings**. Evidence shows that these measures can be rapid and eye-catching ways to transform our perceptions of our streets. Many Londoners still recall the play-beaches created on Tower Bridge (normally a dreary channel for noisy traffic) which on one recent September Car-Free Day became a playground and meeting place for children of all ages.

5.8 Experience from other world cities such as Paris and Copenhagen have shown the value to cities of dramatic, high-profile, symbolic changes to streets. The celebrated 'Paris Plage' scheme, closing a major expressway to traffic in order to provide a two-mile long temporary beach and free entertainment along the Seine in August, provides inspiration to our proposal of a 'North Bank' - echoing both the Paris Plage itself and, closer at hand, the vibrancy of London's South Bank. In Paris, the original 'Paris Plage' scheme is now 'Paris Plages', with additional temporary beaches installed due to the popularity of the initial beach, which reportedly drew three million visitors in its first week alone.

5.9 We propose the closure of the Embankment during August 2011 between Westminster and Waterloo bridges, to enable its temporary conversion to a beach. Of benefit to all Londoners and visitors, the beach would provide a public space in which to enjoy London, as well as a respite from surrounding heavily trafficked streets. Drawing on the Paris experience, this would be a dynamic way to leverage private funding (the city now pays less than a third of the total cost of Paris Plage) and generate income for local businesses and potentially for London as a whole.

5.10 London has experimented with street openings such as Oxford Street's Very Important Pedestrian Day in November. VIP Day has been a great success, warmly welcomed both by shoppers and retailers. The New West End Company, the Business Improvement District covering Oxford Street, reported 2 million visitors to the 2009 event, with 81% of retailers surveyed reporting increased or constant sales despite the economic conditions, and 79% of shoppers surveyed indicating that they would like to see more traffic-free events. The Company quotes a Return on Investment ratio of £157:1[xvii]. We'd like the Year of Walking to build on this, and propose a more ambitious opening during November / December, also incorporating Regent and Bond Streets, and providing a critical mass of streets to attract visitors to the heart of the west end of London.

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5.11 The benefits of such temporary schemes must also be harnessed to ensure that they are more fundamental and longer term, making people look afresh at our streets, how we use them and how we could make better use of them. Paris has made the Paris Plage a vanguard of permanent improvements to the pedestrian environment and transport more generally. 'Better Streets' principles are relevant here, and we wish to use the opportunity afforded by the Year of Walking to test these out in innovative ways.

5.12 We envisage at least three such major interventions on central London's streets and have suggested the above two to give the flavour of our thinking.

5.13 **Crossings**: the carriageways of London's streets are barriers to walking. Even small residential streets can be dangerous, and the main roads are frightening. Children and older people are particularly vulnerable in this context and likely to be deterred from walking.

5.14 Transport for London has an obligation to all road users, and this includes pedestrians, whose primacy as road users needs to be recognised and acted on across the board. This proposal is to tilt the balance more in favour of pedestrians in 2011 and provide a meaningful and lasting legacy from the Year of Walking.

5.15 We propose:

- stopping the trials of "Count Down";
- restoring a standard of 10 seconds for crossing of major roads, rather than the 6 seconds which has become more common;
- making the 500 signal controlled junctions not meeting agreed standards for pedestrian safety compliant with these standards; and instituting a programme of shortening pedestrian crossing distances, by footway buildouts and narrower carriageways. This will often also improve traffic flow by reducing pedestrian crossing times.

We seek delivery in 2011 of the achievement of (1) to (3) above and a substantial start on (4).

5.16 **Central London Pedestrian Network**: central London should be one of the finest cities in the world for walking and exploring on foot, with so many attractions, destinations and meeting-places all within easy walking range of each other. But sadly, as anyone who lives or works in the centre will confirm, the streets and public spaces in and around the West End are noisy, congested, and dominated by motor traffic, with pedestrians too often treated as an afterthought.

5.17 This picture of traffic domination just isn't good enough for a great city like London, soon to host the Olympics. We need to **compete with cities which do much more for pedestrians**, like Barcelona, Copenhagen – and now even New York. The bustling, popular streets and public spaces of Central London are much more than traffic highways and intersections – they are important destinations and meeting-points in their own right.

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5.18 It's time to transform the West End by changing our priorities, putting people first and motor traffic second. Let's build a **network of pedestrian-friendly streets and public spaces** in and around the city centre, inviting people to walk instead of using cars or public transport. The network could be built up gradually step by step, starting with a central hub like Leicester Square, and building on the scattered traffic-free streets and public spaces which already exist in and around the city centre, like Covent Garden, Chinatown, and parts of Soho.

5.19 A network of pedestrian-friendly streets and public spaces around the centre of the city would be practical, affordable, and completely in line with the Mayor of London's new Transport Strategy. It would soon become extremely popular and a centre of economic vitality, encouraging people to travel on foot instead of using tube, train, or bus - especially on those short trips around the centre where the tube system is under most strain.

5.20 **20 mph for the TLRN network**: to reduce the motorway ambience, civilise the streetscape and make London's public realm worthy of a world class city.

5.21 The Year of Walking could deliver a transformation of London's traffic-dominated arterial routes into decent places for those who live, work, shop and travel to school along them.

5.22 TfL should seize the opportunity to build on recent streetscape improvements such as the removal of guardrails and the implementation of 'Cycling Superhighways' to deliver a more pedestrian friendly environment using Better Streets principles along the TLRN network.

5.23 The introduction of 20 mph speed limits would civilise the motorway ambience on London's main roads: reducing community severance, making the streets safer for pedestrians and cyclists and reinforcing the message that these central public spaces are meant for people and not just for fast moving vehicles.

5.24 Islington Council is implementing 20 mph limits on all residential roads, which means that a **trial 20 mph scheme** could be introduced along the A1 with relative ease as there would be few junctions involving a transition between 20mph and 30mph limits. The trial would deliver data on journey times and safety, allowing an evidence-based decision to be made about rolling out 20 mph limits on other TLRN routes.

5.25 As part of the Year of Walking we would also encourage the committee to recommend that **data collection** in London, where they relate to pedestrian flows, could be improved.

6.0 What work are you currently engaged in at a borough level outside of work with the Mayor or TfL? Please give details on any programmes which might affect the 2011 Year of Walking.

6.1 Service Level Agreements with London Boroughs: we are currently acting as a strategic friend to City of London. feeding into their LIP2 objectives, working in

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partnership with them on Walk to Waterloo (encouraging people to walk the route of the Waterloo and City Line as opposed to taking the tube**)** and conducting design reviews of streets, with a current focus on Holborn Circus and plans to move on to Aldgate in the near future.

6.2 Step Out in London: Living Streets 'Step Out in London' is a London Councils-funded project that is concerned with promoting better use of recently improved walking environments (town centres, high streets and public squares) across London. The project works alongside local authorities, businesses and communities to encourage more walking in three locations per year over the course of the project (up to 2012).

6.3 The aim of the project is to celebrate physical improvements to local environments in London, and to complement these with a series of promotional activities that highlight the value of walking to local residents and businesses alike. In this way it is hoped that the project can achieve lasting change whereby those travelling to their local shops or services make walking their natural transport choice.

6.4 The promotional activities involved in this project will be varied but will always act to work with and for the benefit of the local communities. Examples include organising a street party or some led walks, developing a local map or introducing a local discount card for those walking to their shops.

6.5 Current locations for this project include The Cut in Lambeth /Southwark, Wansted in Redbridge and Ladywell Fields in Lewisham.

6.6 Fitter For Walking: Living Streets' Fitter for Walking project works to improve the local environment and get more people out walking. It is focused on enabling communities, and it gives people the skills to improve their surroundings. Often it's the simple things that can make a huge difference, whether a street tidy-up, a street party or a crossing in the right place. Activities include:

- Conducting audits of the pedestrian environment;
- Liaising with local organisations and authorities;
- Promoting local walks;
- Providing communities and practitioners with easy, effective ideas to help the community flourish.

6.7 Walking Works (as mentioned from paragraph 4.15 onwards) Also, the Campaign Partner Scheme is a Walking Works' scheme to provide one-to-one support to employers who want to promote walking to their staff. We're working with a select number of employers across England, providing them with free advice, support and resources. There are two strands to the scheme: the national scheme is funded by the Big Lottery Fund and the London scheme is funded by London Councils.

6.8 Walk to School and WoW (**as mentioned from paragraph 4.9 onwards)**

6.9 Walk to School, Hackney development project: Over the next two years, Living Streets will be trialling new interventions to promote everyday walking to school in London. This will build on the successful formula of the WoW scheme (Walk Once a

Week) which a large number of schools in London already participate in. A dedicated coordinator from Living Streets will be liaising with 3 pilot schools, within the London borough of Hackney, where initial trialling of new resources/interventions will take place from spring 2011. Successful interventions will be rolled out nationwide from late 2012. This initiative is funded by the Department of Health.

6.10 Living Streets has 9 groups working in boroughs across London seeking to create safe, attractive, enjoyable streets where people want to walk who will be continuing this work throughout the Year of Walking.

6.11 Community Street Audits (as mentioned from paragraph 4.4 onwards)

6.12 Appendices

Appendix A: Community Street Audit in Peckham
Appendix B: Community Street Audit Examples
Appendix C: Vision for London
Appendix D: Central Pedestrian Network
Appendix E: Living Streets consultation response to Mayor's Transport Strategy

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3 August 2010

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Living Streets Audit – Peckham High Street Thursday 5th August 2005.

1. Method

Aim: To undertake a demonstration street audit of the central section of Peckham High St in the company of the scrutiny committee of the GLA in order to:

- gain an understanding of the quality of the area from the pedestrian point of view
- understand how street audits can help identify issues that especially affect those who are walking.

Participants:

GLA Member Caroline Pidgeon
Ian O'Sullivan
Laura Gilmore
Dana Gavin

Living Streets – Phillipa Hunt & Jeremy Leach

The Route: The group met at the Peckham Pulse and then walked along Peckham High St. starting on the south side at the junction with Bellenden Rd and walking east to the junction with Clayton Rd. The group then crossed to the northern side and walked back to the junction with Melon Rd (opposite the Bellenden Rd junction).

After completing the walkabout and looking at the area in detail, we then chatted about the themes that had come out.

2. The Detailed Findings.

Location 1. Junction with Bellenden Rd.

- Dominance of the location by traffic and especially lorries and buses.
- Tired looking area as evidenced by faded road markings and dirty pavements (from chewing gum, oil and grease).
- Clutter – many vertical poles that could be consolidated, guard railing and utility boxes blocking the pavement.
- Poor crossing to link residential areas in the north with the town centre.

Location 2. Between Bellenden Rd & Rye Lane (outside the Crackerjack shop).

- Tired and neglected shop fronts.
- Clutter in the form of bins and poles.
- Narrow pavements. Real need to widen pavements here. There is an opportunity as apart from the red route loading bay there is room for two lanes of traffic at this point (although only a short distance either way the southside carriageway reverts straight back to a single lane). Incorporating the loading bay into the footway would allow for far more pedestrian space in this very cluttered area.
- Crossing is very difficult here. Many people are not crossing at the formal crossings as they want to get directly to the bus stops. Informal crossing needs to be far easier and safer as people want to cross throughout the section between Bellenden Rd and Rye Lane. The guard railing in the centre of the road should be removed here and either a formal central pedestrian refuge should be created through this section or the pavements (especially by the very congested bus stops on the northern side) should be widened to reduce crossing distances.

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- Greenery is needed. There is very little greenery to reduce the harshness of the urban environment.

Location 3. Rye Lane.

- New section looks very good – fresh, light, clean and user friendly. Excellent wide pavements.
- Contraflow cycle lane signs too subtle and hard to spot in the pavement.
- Cyclists do not appear to be following the contours around the top of Rye Lane.
- Widened crossing (formal crossing to Peckham Square). The beep goes off too early and the less mobile may be concerned that traffic is about to start moving straight away.

Location 4. Rye Lane to Bull Yard.

- Narrow & cluttered pavements. Broken and lamppost that has not been removed and looks dangerous. A boards litter the section by the edge of the already very narrow pavement. Some of the poles could be combined or removed to reduce clutter.

Peckham High St - Narrow and cluttered pavements and broken lamppost that has not been removed.

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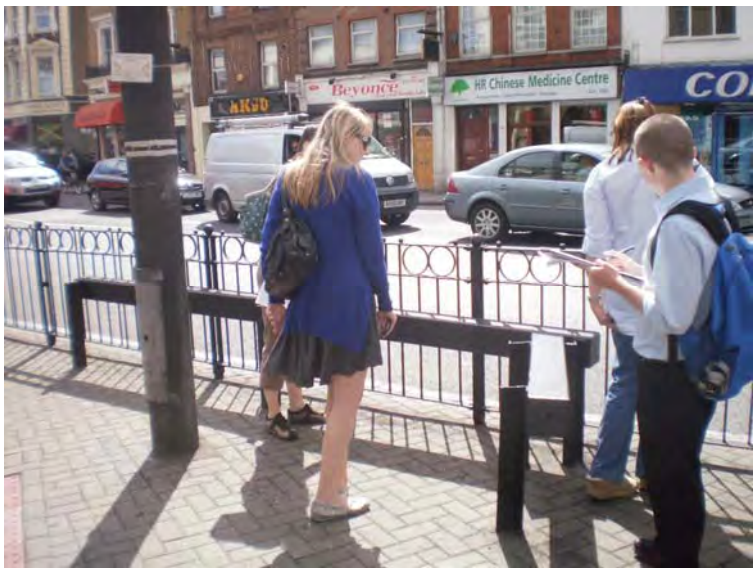
Bull Yard –Currently an eyesore but opportunity to create a link for pedestrians through to Morrisons.

Location 5. Crossing at the southern end of Peckham Hill St.

- Very complex and protracted crossings. Three separate stages to cross to the north side of the road. No audible signal at the time of the green man; some of the turncones on the crossings do not appear to be working. Heavy iron guardrail makes people feel they are being herded “like sheep”. “Walkers are clearly not as important as cars”.
- Bull Yard. A problem and an eyesore. Rubbish piles at the far end. Cars taxed and untaxed parked on single and double lines on the red route for long periods. Big opportunity as if opened up and cleaned up this route could offer a pleasant pedestrian shortcut through to the Morrisons and avoid much of the walk through the bus station.
- On the northern side crossing Peckham Hill St by the formal crossings (by Manzis) took 1 minute and 40 seconds (!) simply to cross the road. Very narrow pavement on the eastern side of Peckham Hill St and poorly maintained.



Pedestrians are herded through a series of heavily fortified crossings.

Location 6. Bus Station.

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- Difficult to cross the entrances to the bus station. Long crossings in the road itself (especially on the western entrance). Unclear when it is safe for pedestrians to cross as there is no green man on the crossing.
- Character of the road changes at this point from retail frontages to residential. The road is becoming wider and the pavements wider and less cluttered.
- Unpleasant crossing to the north side of the street with many lanes to cross and much guard railing in the centre. Purpose of the raised wall (planted with palm trees) central island is unclear as it takes up significant amounts of pavement space that could be of real use to create a wider pavement on the north side of the road.

Location 7. Clayton Rd Junction.

- (Southside) Unclear for pedestrians as to when it is safe to cross owing to the lack of a green man and any audible signal.
- (Crossing Peckham High St) Green man is invisible on the eastern arm of the crossing owing to the excessively angled slits on the light. Some turn cones are not working and there is no audible signal to help people to cross.
- Overall. Very wide crossing and carriageway covering up to 7 lanes (including the space taken up by the central island). Looking east vehicle speeds increase significantly as the road widens so much. Real opportunities to reduce road capacity here and create more of a boulevard with planting and trees (perhaps in the middle of the road). Far too great a distance between crossing as the road approaches Queen's Rd. Real thought is needed how to improve this stretch of road once the Woodene Estate is redeveloped to encourage safe and pleasant walking routes for residents.

Location 8. Outside Dunstall House.

- Poor state of the pavement with broken concrete paving mixed in to the paving close to the kerb.
- Dangerous steep drop kerb by the new medical centre beneath the Housing Association premises (see below).

Location 9. The Lid – Peckham Square.

- Great area but very dirty with much evidence of wear and tear at the pavement edge. As with many parts of the town centre needs a deep clean and better maintenance.

Location 10. Outside the entrance to the Pulse.

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- Even at 11.30am evidence of tremendous crowding by the bus stop on the north side of the road owing to the combination of:
    - people walking along the street
    - people waiting for a bus
    - people getting on an off the buses.
- Given the high number of bus movements and the crunch at the end of the day, this section of pavements needs to be widened considerably and far more space needs to be created at the bus stops themselves.

3. Overall Themes. Peckham High St is a lovely lively shopping area with lots of heavily used independent shops and many people constantly using the space. While there is much that is good to build on (and the improvements to the north end of Rye Lane are very welcome) major improvements are needed in relation to:

1. General conflict between heavy traffic and pedestrians and cyclists. Where is the space for the cyclists (especially if this is to be a cycle superhighway route)?
2. Poor crossings. A number of crossings are long and complex for pedestrians and have not been designed to make crossing be or feel safe. Crossing needs to be easier west of Rye Lane and the crossing at the junction with Peckham Hill St needs to be redesigned.
3. Insufficient pavement width. Pedestrians are hemmed in very narrow spaces along much of the High St. Space does exist to widen the pavement in paces if some redundant road capacity is removed (eg west of Rye Lane and east of the bus station).
4. Clutter. Too many vertical poles and other clutter in the form of bins, traffic light boxes, A boards and phone boxes dotted around what are in many places very narrow pavements.
5. Vehicle speeds. Not an issue in the central section at the time of the audit but vehicle speeds appeared far higher to the east of Clayton Rd where road capacity increases significantly. Thought needs to be given to the stretch between Clayton Rd and Queens Rd once the Woodene Estate site is redeveloped to create a safe and pleasant environment for the new residents.

Jeremy Leach Living Streets 10th August 2010

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A vision for London:
a world class walking city

A report setting out priority areas for action, to turn our capital into a world beating walking city

Living Streets
November 2009

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Living Streets is the national charity that stands up for pedestrians. With our supporters we work to create safe, attractive and enjoyable streets, where people want to walk.

This document sets out a vision for London, highlighting the key issues that we believe will help London to meet its potential as a world beating walking-friendly city. It provides a framework for our own work in London, both as a national organisation, and as a network of local groups in many of London's boroughs. Our activities and campaigning work will be based around the calls to action we set out in this document. There are five priority areas on which action needs to be taken to achieve our vision, with detailed calls within each one.

Framing our vision for London

There are four key principles underpinning our suggested approach:

- **Leadership and long-term vision**
  Ambitious modal shift targets, strong political leadership and a visionary outlook

- **Effective Delivery**
  Boroughs need to be innovative and effective in their delivery of schemes, enabled and supported by TfL

- **Activities and interventions on the ground**
  Specific schemes, projects and interventions on the ground.

- **Promotion and marketing**
  Marketing and promotion of walking as an overarching public facing campaign.

Priority area one: Ambition for London

- We need an ambitious, long-term vision statement on walking and public realm improvements that sets out commitment to achieving a transformation in the number of walking trips. Currently half of trips between 0.5–2km in length in London are made by car, but only 29% of them on foot.
- We want to see these numbers reversed as a first step to making walking the natural choice for short journeys in the capital and this should be adopted as a central plank of the Mayor's transport strategy.
- A greater proportion of the TfL budget should be invested in walking, with a specific objective to "invest to save" as part of managing demand for private and public transport travel. Health budgets must also be more actively targeted to support walking project delivery, reflecting the huge positive impact that active travel has on public health.
- We need to use the Olympics to establish a true legacy for Londoners- a once in a generation opportunity to encourage everyday activity and transform the way we think about the city and how we interact with it. Regular and prolonged car-free events and festivals should become the norm, with trial pedestrianised areas showing how our city can be improved for everyone.
- We need to invest and extend existing schemes which we already know work, such as Living Streets' Walk to School campaign and Walking Works campaign.
- We need to compare London's Walkability to other cities and benchmark our own performance, so we can see how well we're doing and where we need to focus resources.
- A strong multi-stakeholder steering group on walking and public realm should be created to advise and support the vision of London as a world class walking city, and support delivery partners such as voluntary sector organisations.

Priority two:
Revitalise the West End

- The quality of the pedestrian experience on Oxford Street is a national scandal.
  We need a staged pedestrianisation of Oxford Street, transforming it into a world class destination befitting its status as the country's most famous shopping street.

- We need to connect the islands of great public space in central London by developing a network of pedestrian-friendly streets and public spaces, free of barriers to walking and free of traffic domination, where people on foot can relax and feel comfortable. The network could be built up on a step-by-step basis, starting with a central hub such as Leicester Square, and linking it to important nearby destinations like Trafalgar Square, Covent Garden, and Chinatown. From there, the network would extend outwards to take in the busy pedestrian highways, the main tourist attractions, the great parks, the river, and central London's mainline stations.

Priority three:
Thriving town centres and neighbourhoods

- Outside central London, our town centres and high streets should be well-designed, liveable and welcoming places. We need to transform the quality of the pedestrian environment and revitalise our village and town centres all across Greater London.

- We need to assess the walkability and permeability of local neighbourhoods and town centres and put in place improvements so that more people walk for local trips, supporting local shops and services.

- The London Plan and Transport strategy and borough plans must recognise the importance of local town centres, with a stronger emphasis on local facilities to reverse the necessity of car travel for work, leisure and retail trips

- We need to support the establishment of car free developments in London- not simply preventing tenants and residents in some developments from obtaining parking permits, but developing or retrofitting developments which are truly car free, as seen in many successful initiatives in mainland Europe.

Priority four:
Creating space for people

- Transport provision in London is not balanced. As the population of the capital continues to rise, so the space afforded to different modes needs to be reconsidered on an ongoing basis. Flagship initiatives to re-allocate space to pedestrians should become principles firmly embedded in both TfL and Borough maintenance and improvement schedules.

- 'Naked streets' principles should form a key part of TfL and Borough planning; with an ambitious and staged programme of de-cluttering, and a better balance between different transport modes. Although high profile flagship projects (e.g. Exhibition Road) are an important way of making improvements, we also need stronger promotion of cheaper and less radical approaches. Recent schemes such as those on Dagenham Heathway and Walworth Road need to be replicated elsewhere, as examples of improvements that are applicable to London's high streets and neighbourhoods.

- The principle of "smoothing the flow" must be about people flow, not simply motor vehicle flow. Changes made on this basis must be empirically-informed and proportionate between modes. When it comes to walking, improvements must relate to Londoners' everyday experience: such as overcrowded footways, inadequate crossings, street clutter and uneven surfaces.

- Pedestrian pinch-points must be addressed as a specific part of "smoothing the flow"- reallocating space away from the carriageway (characterised by low rates of people flow) to the footway (characterised by high rates of people flow). Pedestrian space should not be sacrificed to accommodate more cycling- this should be done by re-allocating space within the carriageway.

- Where a satisfactory balance between road users cannot be achieved, some sort of framework for identifying priority between them must apply. Principles of 'capacity to cause' harm (health, climate change, noise, danger to others and air pollution) must underpin decision-making- using the "link and place" methodology already being explored by TfL.

Priority five:
Safe and civilised streets

- We need 20 mph speed limits across London where people work, live or play. Not only will this drastically reduce injuries, but will also provide a more civilised climate which will encourage walking and cycling. TfL and Boroughs should work together on achieving this as the single biggest measure to make our streets safer and more civilised.

- A radical reduction in the numbers of HGVs on London streets. This can be an extension of a successful ODA programme for the 2012 Olympic development, which has seen 57% of materials by weight delivered to site by more sustainable modes (rail or river). HGVs used in London should also be fitted with mirrors that better enable the driver to see pedestrians and cyclists alike.

- We need to re-connect our communities by improving pedestrian crossings. Our streets should be generally more permeable with informal crossing acknowledged and supported (as in the Strand). Formal crossings should be in place where people want to walk, and meet all accessibility standards and best practice. We need to ensure that all Londoners can cross our streets with confidence and in safety.

- The 484 pedestrian crossings across London that are not currently compliant with TfL's SQA-0064 Design Standards for Signal Schemes in London must be brought up to standard with urgency, and TfL should publish a timetable to achieve this by March 2011.

Living Streets is the national charity that stands up for pedestrians.

With our supporters we work to create safe, attractive and enjoyable streets, where people want to walk. We work with professionals and politicians to make sure every community can enjoy vibrant streets and public spaces

Join our Community for Change

To find out more about Living Streets local groups near you, or to become a supporter and help our work continue, see www.livingstreets.org.uk or telephone 020 7377 4900.

Want to find out more?
Contact us on 020 7377 4900, or email info@livingstreets.org.uk
www.livingstreets.org.uk

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26 August 2010

Dear Caroline,

Thank you very much for your letter of 21 July to London Councils regarding your investigation into making it easier and safer to walk in London.

London Councils welcomes the London Assembly's investigation. We represent all 32 London boroughs, the City of London, the Metropolitan Policy Authority and the London Fire and Emergency Planning Authority. We lobby on our members' behalf, develop policy and provide a collective voice for London's authorities. We believe that increased levels of walking will deliver many benefits to London and Londoners, and that the boroughs are very well-placed to help deliver this objective.

London Councils believes that there are a number of positive outcomes from encouraging and sustaining a higher level of walking in London. It would improve Londoners' health by increasing their levels of physical activity and, if more journeys were walked instead of undertaken by bus or car, it would also contribute to cleaner air and reduced congestion by reducing demand for motorised transport and the consequent pollution. Higher levels of walking could increase personal security as more people walk on the street adding to the public realm's natural surveillance. More walking could also boost local economies, as research has found that those who walk to their local shopping centre spend more than those who travel by car or bus. Finally, if more Londoners walked instead of taking public transport, it would reduce demand on a tube and bus network that is already often operating at capacity, especially in central London.

Your letter asked for answers to three points. This response will reply to all of these, but will focus on the last two.

- *What work are the Mayor and TfL currently doing with London Councils and individual London Boroughs (if known) to encourage more walking? Please provide full details of all relevant initiatives including the costs and funding arrangements, the measurable objectives and the results to date in relation to encouraging more walking.*

While London Councils provides some direct services, we do not directly undertake any work, such as public realm improvements, to encourage walking. However, London Councils is actively involved in developing policy in relation to walking and active travel and also gives grants to organisations that are involved in promoting walking and the active travel agenda. For example, London Councils participates in a number of groups: TfL's 'Make Walking Count' Core Delivery Group; the ODA's 'Active Travel Advisory Group'; and the GLA's 'Active Travel Group'. In addition we are contributing to the development of the GLA's Health Inequalities

Strategy. Our involvement with these groups ensures that the voice of the boroughs is heard in developing policy across the GLA 'family'.

London Councils, through our Grants section, is also currently supporting the work of Living Streets, a national charity that seeks to create more walkable streets.

- *Which initiatives should the Mayor and TfL prioritise in 2011 and beyond to realise a sustained increase in walking?*
- *What, if any, other measures should the Mayor and TfL take to ensure the 'year of walking' delivers a sustained increase in walking?*

We will answer both these questions together, as they are similar.

In November 2008 London Councils jointly produced a report with Living Streets and Walk London ('Breaking Down the Barriers to Walking in London', accessible here: http://www.londoncouncils.gov.uk/media/current/pressdetail.htm?pk=634) which set out the barriers to increased levels of walking in London and recommended ways to overcome them. London Councils has also set out our views on the importance of walking in our response to the consultation on the draft Mayor's Transport Strategy (MTS) in December 2009 (the full response can be found here: http://www.londoncouncils.gov.uk/Transport/Transportpolicy/LondonCouncilsresponsetoDraftMTS.htm), and this letter will draw on both our 2008 report and the 2009 response to the draft MTS.

The 2008 report identified six major barriers to walking in London and made recommendations to address these. London Councils believes that, although progress has been made on some of these recommendations, many of them remain to be completed. They are summarised below along with a brief explanation, where relevant, of how they relate to the aim of delivering a sustained increase in walking in London next year and beyond.

The first barrier that our report identified is that walking is not given a sufficiently high priority institutionally. It may feature on many different agendas in many organisations, but it has tended not to be given a high priority in any of them. The 2008 report recommended that, to address this, TfL and the boroughs should work with the NHS and other relevant organisations to develop an Active Travel Strategy or 'Walking Plan' for London. This would include short-term and long-term actions, and would be subject to ongoing monitoring and evaluation. In the context of the Mayor's proposed 'Year of Walking' next year, London Councils believes that a comprehensive plan such as this would be a very useful basis to ensure that the encouragement of walking was sustained over the long term. We re-iterated this view in our response to the MTS in 2009, and we hope that such a plan will be developed.

The second barrier that the report identified was that borough funding from TfL was not sufficiently flexible to allow for an integrated response to increasing walking levels. For example, an engineered improvement in the public realm might be undertaken to improve the 'hard' infrastructure needed to support walking, but funding for this may not have allowed for a borough to implement personalised travel planning alongside this. Since the report was published, there have been reforms to the way that Local Implementation Plan (LIP) funding is allocated to the boroughs by TfL, and so there should be more flexibility to allow for this to take place from now on. There may be a role for TfL in providing guidance in this area, including the sharing of case studies of what boroughs are already doing and other examples of good practice in order to encourage boroughs further in this process.

The third barrier that the 2008 report identified related to road safety and to personal safety. Although the number of people killed or seriously injured on London's roads has been falling dramatically in recent years, there is an absence of a consistent methodology to measure walking levels and the effect that 'hard infrastructure' interventions have on people's willingness to walk in particular places. Further, as walking levels have been historically harder to measure than other modes of travel, there has been a danger that walking loses out on investment, as the cost-benefit ratio has been harder to define. To remedy this, the report recommended that a consistent methodology should be established to measure walking levels across London. To date, this has still not been set up. London Councils believes that something that could accurately capture levels of walking and, more importantly, indicate the success or otherwise of various interventions, would be of great use in focusing minds and resources onto those measures that were most effective, and would be extremely helpful in making the case for investment in both 'hard' and 'soft' measures. We would be happy to work with TfL and others to help set up such a methodology, providing that it would be appropriate for use at a borough level.

In addition to the above, London Councils would like to see boroughs given more influence over speed limits on the TLRN in their areas, so that they are able to address road safety issues more comprehensively.

The fourth barrier that the report identified was that of perceived distances and routes between locations. The less people know about the distance and route between two places, the less likely they are to walk between them. The report recommended greater provision of information through maps, signage and other relevant marking, including the Legible London scheme. London Councils is pleased to see that the scheme has been expanding, but is concerned that TfL have stated that they will not be funding the expansion of the programme themselves. If TfL wants to ensure that walking levels are sustained after 2011's expected increase, it should ensure adequate levels of funding for measures such as Legible London in future years.

The fifth barrier to walking that we identified was the impact of an unattractive walking environment on walking levels. Roads that are cluttered with unnecessary street furniture, are excessively polluted and noisy from vehicle traffic, or are poorly lit with few or no other people around are less likely to be used by pedestrians. Further, given that traffic levels are highest in central London and in town centres, and that these are also the destinations that most people would like to walk to, making these more attractive environments to walk in would help achieve a modal shift that would reduce overcrowding on the roads and public transport. While there has been much useful work in identifying 'Key Walking Routes' in boroughs and with the Mayor setting out good design of public spaces through his 'Better Streets' and 'Better Green and Open Spaces' programmes, London Councils thinks that a comprehensive strategy for walking in London, such as the one suggested above, should build on these and continue to focus on identifying and improving the routes that would make the greatest impact on levels of walking.

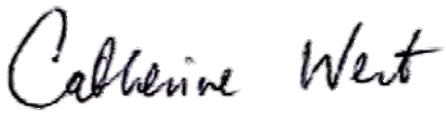
The final barrier that our report noted was that of overcoming existing travel habits, and of the importance of involving the NHS, significant employers in London and TfL in a proposed 'Land Miles' scheme to reward and support employees and clients to walk to work and while on business. This has not yet happened, and London Councils believes that establishing an incentive-based scheme in the coming year and continuing it beyond 2011 could help a sustained increase in walking levels in London.

Finally, London Councils believes that the Mayor should adopt a hierarchy of transport modes, with walking at the top, followed by cycling, then public transport and then car use. We believe

that the transport strategy should be guided by this setting out of modal priorities. London Councils believes that such a policy framework would actively discourage less sustainable modes of transport and would act as a building block for the long-term development of walking as a travel mode in London. Without such a hierarchy the Mayor will not be able to achieve many of his other priorities for London.

I hope that this has been a helpful reply. If you would like further information about any aspect of this response, please contact Dominic Curran, Planning Policy and Project Officer: tel 020 7934 9508 or email: dominic.curran@londoncouncils.gov.uk.

Yours sincerely,



Catherine West
Chair, Transport and Environment Committee, London Councils

London TravelWatch submission to the Transport Committee investigation into making it easier and safer to walk in London

August 2010



London TravelWatch is the official body set up by Parliament to provide a voice for London's travelling public.

Our role is to:

- Speak up for transport users in discussions with policy-makers and the media;
- Consult with the transport industry, its regulators and funders on matters affecting users;
- Investigate complaints users have been unable to resolve with service providers, and;
- Monitor trends in service quality.

Our aim is to press in all that we do for a better travel experience all those living, working or visiting London and its surrounding region.

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Executive Summary

London TravelWatch is pleased to provide a written submission to the Transport Committee investigation into making it easier and safer to walk in London.

The importance of walking as a mode in its own right is now recognised by the Mayor, TfL and the London boroughs.

There is some progress towards improving conditions in London for pedestrians. Initiatives such as the Mayor's *Better Streets* agenda builds on the previous administrations' Walking Plan for London, and the seminal Jan Gehl study: *Towards a fine City for People*[1]

However TfL's network assurance regime often works against *Better Streets* initiatives. We would welcome a review of that regime to allow more walk friendly initiatives to be implemented or at least the network assurance regime should be more transparent. There are other contradictory policies that work against those seeking to improve the pedestrian environment and promote walking.

Legible London is now well developed and has the potential to be a pan-London pedestrian wayfinding scheme, but some of its potential benefits will be lost as implementation is optional and may well not be taken up by all boroughs.

There are many years of detailed street works to be done by TfL and the London boroughs to systematically and incrementally improve the walkability of London.

Decluttering of pavements is now embraced by all of London's highway authorities, but there are constant pressures to put more clutter onto London's pavements. There is a need to resist this and to undertake more enforcement of unlicensed obstructions on pavements.

[1] Towards a fine City for People, Gehl Architects, 2004

1 Introduction

London TravelWatch is the statutory watchdog representing transport users in London.

The importance of walking both as a mode in its own right and as the link between trips and modes is recognised by London TravelWatch.

The Committee contributed to, and has supported the findings and approach of, the House of Commons Select Committee investigation: *Walking in Towns and Cities*[2] and would commend that report to the London assembly scrutiny.

In 2004 TfL and the Central London Partnership commissioned Jan Gehl to report on what might be done in London to promote more walking in central London. The report *Towards a fine City for People* has been debated by London TravelWatch members. We support the approach and the principles it promotes. Again we would commend this report to the assembly scrutiny.

London is making good progress in improving the walking environment. It has adopted policies and programmes that support walking:

- The Mayor has published *Better Streets*[3] a practical guide to prompt better street design.
- There are also great examples in London of better street design, for example Kensington High Street, the most high profile, innovative and brave attempt to improve the pedestrian environment. This has been followed by other schemes such as at the junction of City Road and Old Street. The Committee has visited the Kensington High Street scheme and supported Kensington and Chelsea in its implementation.
- TfL and some boroughs have also been reassessing the value of removing 'pedestrian' guard railing. TfL have removed many kilometres of guard rail. The Oxford Circus project is a particularly high profile and seemingly successful project to widen the pavements and remove barriers to walking.
- Removing pavement clutter is now accepted as a by London boroughs as supportive of promoting more walking..
- The pan-London pedestrian wayfinding scheme, *Legible London*[4], is now well developed and is being promoted to all London's boroughs.

[2] Walking in Towns and Cities, Environment , Transport and Regional affairs Committee, 2001: http://www.parliament.the-stationery-office.co.uk/pa/cm200001/cmselect/cmenvtra/167/16707.htm

[3] Better Streets: Practical Steps, Mayor of London, 2009: http://www.london.gov.uk/greatoutdoors/docs/better-streets.pdf

[4] Legible London: http://www.tfl.gov.uk/microsites/legible-london/

However, there are some contradictory policies that work against policies to improve the pedestrian environment:

- The emphasis on keeping traffic moving as opposed to traffic reduction will limit the scope to rebalance the use of London's streets in favour of the pedestrian.
- The reversal of support for congestion charging will reduce the incentives to walk and worsen the pedestrian experience.
- The reduction in emphasis on supportive policies that would promote walking, such as bus priority, is disappointing.

Finally there is a need for more attention to detail. Of all the modes walking is the one that is most sensitive to getting the detail of street design correct. Pedestrians may never notice, but Jan Gehl demonstrated in his report that the detail is important: pedestrians want wider, continuous and level pavements, places to sit and watch the world go by, simpler road crossings and a much simpler, uncluttered streetscape.

2 The Committee's questions

Which of the Mayor and TfL's current initiatives to promote walking are resulting in more people walking or which might deliver a sustained increase in walking in the future? Which should be prioritised in 2011 and why?

It is difficult to quantify the impact of individual policies and programmes and how much they will contribute to an increase in walking. However, we do believe that the adoption of the recommendations of the House of Commons Select Committee investigation: *Walking in Towns and Cities* and Gehl's *Towards a fine City for People* is most likely to result in an increase in walking and would commend those reports to the London assembly scrutiny.

Our assessment of TfL's current initiatives is based on our support for these two reports and London TravelWatch's consideration of pedestrian issues over many years.

2.1.1 Better Streets: Practical Steps

TfL has recently renamed its main streets directorate Better Routes and Places and organised the directorate around the notion that all that they do should create better routes and places. This is welcome, as is the publication by the Mayor of *Better Streets: Practical Steps*[5] that describes a fresh and more holistic approach to street design.

This guide represents a step change in the approach to good street design and gives some very simple practical steps to promote change.

However, TfL has adopted a Network Management Plan that is policed by its Network Assurance team, following the enactment of the Traffic Management Act 2004. This Plan is traffic engineering led and seems to us to work against the more holistic approach promoted by *Better Streets*. This is in contrast with Camden's[6] Network Management Plan which takes a much more rounded approach than TfL and notes:

> "Network management is one element of an authority's transport activities…."

TfL's approach to the Network Management Act places much emphasis on keeping the traffic moving as opposed to delivering holistic schemes that will promote modal switch.

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[5] Better Streets: Practical Steps, Mayor of London 2009, http://www.london.gov.uk/greatoutdoors/docs/better-streets.pdf

[6] Camden's Network Management Plan : http://www.camden.gov.uk/ccm/cms-service/stream/asset/?asset_id=397883

This has resulted in schemes such as Tottenham High Road (which we generally support) losing a pedestrian crossing and at the Angel Islington (which again we generally support) having a crossing of Upper Street at a location away from the pedestrian desire lines.

These are both town centre schemes which would have benefited from the more holistic approach *Better Streets* advocates. Numerous other pedestrian crossing schemes continue to be designed that are two stage, staggered crossings because of the requirements of network assurance. TfL's network assurance regime also effectively manages the borough's street designs, particularly on the statutory Strategic Road Network (SRN) and leads to similar pedestrian unfriendly proposals.

We want to see TfL review its Network Management Plan regime in the light of the *Better Streets* approach and be more transparent as to how it makes the 'balanced decisions' that it says it makes.

2.1.2 Design for London[7]

Design for London, part of the London Development Agency (LDA) has been, and is, involved in some great schemes that, by creating better public spaces, will encourage more walking.

2.1.3 Legible London

London TravelWatch has been supportive of *Legible London* throughout its evolution and would very much want to see it rolled out as a pan-London scheme. Part of its value is its potential to rationalise the numerous wayfinding schemes across London. Being a single pan-London system would mean that pedestrians / passengers would only have to understand a single system and have confidence that it exists wherever they travel in London. It is therefore disappointing that the devolving of funding to the London boroughs may well mean the scheme is not taken up by them all and so *Legible London* will not be a truly pan-London scheme.

TfL, as the strategic transport authority, can influence the decisions of boroughs using the guidance it issues with respect to the Local Implementation Plan (LIP). We recommend that the implementation of *Legible London* be a requirement of London boroughs' Local Implementation Plans.

2.1.4 Guard rail removal and decluttering

London TravelWatch members have considered the reasons for the installation of 'pedestrian' guard rail at a committee meeting with TfL officers and have visited Kensington High Street with Kensington and Chelsea officers. London TravelWatch

[7] Design for London: http://www.designforlondon.gov.uk

generally supports the removal of 'pedestrian' guard railing unless there is a specific safety reason for its installation. We welcome the Mayor's support for its general removal and would hope the London boroughs follow the Mayor's lead on this issue.

London TravelWatch supports TfL policy of decluttering pavements. We have supported TfL in its approach to the DfT to remove the requirement on it to supplement double red lines markings on the carriageway with a 'no-stopping' sign. We believe London's drivers understand the meaning of double red lines and that there would be much benefit in removing the numerous supporting signs.

However, there is much to be done. From observation London's streets remain cluttered with redundant sign poles and other extraneous street furniture etc. Some of this could be removed or rationalised using, for example, one pole for both street lighing and traffic signals.

2.1.5 The Wandsworth pilot to tackle obstructions on the pavement

In 2000 the then Managing Director of Streets wrote to all Transport for London Road Network (TLRN) frontagers asking them to remove unlicensed highway obstructions, A-boards etc from TLRN pavements. Following that letter some work was done to enforce against highway obstructions, but enforcement, from observation, has not achieved compliance.

TfL has recently undertaken a pilot project with the London Borough of Wandsworth, that had been frustrated by a lack of enforcement, to determine if the local borough would be best placed to take on TfL's responsibility for keeping the TLRN pavements clear of obstructions and to ascertain whether delegating any of TfL's highways powers to Wandsworth was necessary.

London pedestrians have no interest in who is managing the streets and keeping them clear of obstructions, but will be concerned if they are not kept clear, particularly those with impaired vision or mobility problems. We understand from Wandsworth that the outcome of the pilot has been positive from a pedestrian's perspective. However, more work and an agreement as to how continuing enforcement is funded needs still to be resolved.

We would recommend that TfL increases enforcement activity against unlicensed obstructions on the TLRN pavements to a level such that there is general compliance.

2.1.6 Sutton pilot

In 2006 Sutton was chosen for an area wide approach to 'travel awareness' programmes. This was an intensification of existing, but geographically spread, initiatives such as personal travel planning, cycle training schemes, 20mph schemes etc, to persuade Sutton residents to choose more sustainable modes for some of their

journeys. This programme has followed on from similar 'smarter travel' national programmes.

Whilst we welcome such initiatives and recognise they have the potential to change travel behaviour it should also be recognised that researchers[8] advise that in order for these types of initiatives to be sustainable, in the long term, they should be accompanied by proposals to 'lock-in' the benefits. In brief it is suggested that persuading some drivers to change mode would release road capacity, in urban areas, but that others would take up the released capacity. Therefore alongside such initiatives other schemes such as bus priority, road-user charging, and reallocation of road space to pedestrians are necessary.

2.1.7 Pedestrian countdown

Pedestrian countdown is being trialled at eight sites[9] in London. It has been developed as part of the Mayor's smoothing the traffic agenda. London TravelWatch members have discussed the proposals with TfL officers, but have yet to take a considered view on the scheme.

There is presently confusion regarding the sequence of pedestrian crossing lights – the green man time etc. We have been assured that the 'green man' time (invitation to cross time) would not go below 6 seconds and the crossing time (the period counted down) would be as per the DfT specification for pedestrian crossings. We would want to see any saving in 'green man' time allocated to benefit buses where possible and not routinely added to the general traffic time.

The proposal, although originally a smoothing the traffic initiative, has potential benefits for pedestrians in providing them with more information as to how long they have to cross the road. The scheme appears to have merit and we look forward to seeing the trial report.

[8] The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Summary Report: http://www.dft.gov.uk/pgr/sustainable/smarterchoices/smarterchoiceprogrammes/pdf/summaryreport.pdf
[9] Pedestrian Countdown at Traffic Lights, http://www.tfl.gov.uk/corporate/projectsandschemes/15490.aspx

What, if any, other initiatives should the Mayor and TfL adopt to make it easier and safer to walk in London and why? Please provide as much detail as possible, including what the initiative involves, where it is already happening (e.g. in London, elsewhere in the UK and/or abroad), which organisation(s) are responsible, its cost and how it is funded, and its measurable impact e.g. how many more people are walking as a result of the initiative?

Jan Gehl's report mentioned above identified five themes that we would want to see adopted to make it easier and safer to walk in London. This approach has proved successful in other European cities highlighted in Gehl's report notably, Copenhagen, Lyon and Barcelona, but it will take more that a single 'year of walking'. It will take many years of sustained commitment to create a more walkable London.

In 2009 the Mayor of New York and Commissioner Sadit-Khan embarked on similar programmes to that which Gehl suggests for London. Iconic spaces such as parts of Broadway have been closed to traffic and become pedestrian space.

Gehl's proposes five themes:

1. Creating a better balance between vehicular traffic, pedestrians and cyclists;
2. Improving conditions for walking and cycling
3. Improving conditions for resting and simply passing by
4. Upgrading the visual quality of the streetscape
5. Promoting a shift in mind-sets towards a more people-orientated city culture.

Gehl suggests an incremental approach to both improving the pedestrian environment by, for example, increasing footway widths, simplifying crossings, decluttering, providing seating and places to rest. Creating a level and continuous footway by the introduction of junction entry treatments, pedestrian crossovers rather than vehicular accesses etc. These are simple interventions, but Gehl stresses the importance of getting the detail right.

TfL and the London boroughs are doing some of this both in major schemes and as part of their works on corridors, but there is not a systematic and stated approach to making a step change in the 'walkability' of London. We do hope the Year of Walking will provide that. The Mayor's *Better Streets* guide suggests this approach, but is focuses on new one-off schemes, whereas Gehl suggests a much more incremental approach as part of an ongoing evolution of all London's streets.

The second, and as important part of Gehl's proposal to improve the walkability of London and create a better balance between pedestrian's and vehicles is to restrain motor vehicles; congestion charging, parking restraint, reallocation of road space. Disappointingly this side of the transport equation is not being adopted by the Mayor.

Much investment and effort creating a more walkable London will be being lost by an unwillingness to adopt complementary restraint policies.

What, if any, other measures should the Mayor and TfL take to ensure the 'year of walking' delivers a sustained increase in walking?

Nothing further to add

What work are you currently engaged in at a borough level outside of work with the Mayor or TfL? Please give details on any programmes which might affect the 2011 Year of Walking.

London TravelWatch is consulted by most London boroughs on many highway schemes and we routinely comment on these on behalf of users.

As part of its pro-active work to improve conditions for travellers in London we have promoted a better pedestrian route between Euston and St Pancras[10]. Instead of the very busy Euston Road we have suggested improvements to a parallel route via Brill Place and Phoenix Road – primarily creating a more pleasant level and continuous footway with wayfinding.

We brought together all the rail industry players and the local authority to meet with us to discuss this in January 2010 and are pleased that all have expressed support for this proposal. Subsequently Camden has committed funding to start implementing improvements. Latterly the ODA has offered its support to the route and is working with Camden.

[10] A better pedestrian route between Euston and St Pancras: http://www.londontravelwatch.org.uk/news.php?id=722

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Caroline Pidgeon AM
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20 August 2010

Dear Caroline Pidgeon

London Assembly Investigation into making it easier and safer to walk

Thank you for your letter dated 21 July inviting us to submit our views on current and future initiatives to encourage more walking in London, particularly in connection with the Mayor's proposed Year of Walking in 2011.

The Ramblers sits on the Making Walking Count Core Delivery Group hosted by Transport for London and in that capacity we have already been in discussion with the Mayor's Transport Advisor Kulveer Ranger, TfL officers and other stakeholders on potential themes and activities for the Year of Walking. At TfL's SmartMoves conference earlier this year I put a question to Kulveer about how he and the Mayor envisage the Year of Walking, and if there were any flagship initiatives planned, equivalent to this year's launch of Cycle Hire and Cycling Superhighways. Kulveer turned the question round by asking what the Ramblers would like to see during the Year of Walking and we have subsequently drawn up a written document which has been submitted to TfL.

For your information I have reproduced the content of that document below, with a number of amendments following preliminary discussion with TfL as well as Ramblers volunteers and colleagues. I believe it should provide a comprehensive answer to the questions in your letter, although not in the order in which you have asked them. I hope this is acceptable and the document in useful.

The document focuses on a range of promotional initiatives for walking, but in addition we also have a current specific and focused campaign aimed at improving the walking environment in London. This is entitled Putting London on the Map and

aims to encourage Inner London boroughs to produce official definitive maps of their off-road public rights of way, a statutory duty of which, uniquely among highway authorities in England and Wales, they are currently excused. The Mayor has already signalled his support in principle for this campaign, which could play an important role in the Year of Walking. We enclose a detailed paper about Putting London on the Map.

I have also enclosed a copy of *A new voice for walking in London*, a document produced by the Ramblers Greater London Forum which represents all our volunteers in London. As you will see from this, in the longer term we are particularly keen to support the development of a green network of walking routes in London. It's vital that the seven routes of the existing Strategic Walks Network continue to be maintained, promoted and supported when the initial funding for Walk London expires next year. Furthermore we believe the SWN should be further developed and expanded, incorporating both additional existing routes and new links, and integrating with other networks such as the Olympic Greenways.

Once again thank you for asking us to contribute to this process. We look forward to your conclusions and recommendations with great interest. Please do not hesitate to contact me if you need any further information or clarification.

Yours sincerely

Des de Moor
Senior Everyday Walking Officer

London's Year of Walking 2011

Making Walking Count
Ideas from the Ramblers

What the Ramblers can bring

The Ramblers is Britain's walking charity, working to safeguard the footpaths, the countryside and other places we go walking, and to encourage more people to take up walking. With 125,000 members in England, Scotland and Wales, and many thousands of volunteers, we've been working for walkers for 75 years.

We work for a walking Britain, where walking is a popular choice for its people, both for relaxation and in daily life. We want walking to be an enjoyable experience for all, whether in the countryside or in the city, on gentle paths or challenging hillsides. We believe that walking contributes to health and well-being and supports a more sustainable way of life. We are dedicated to working both for better quality walking environments and to making walking more accessible to all, through campaigning and lobbying as well as practical delivery of walking promotion.

Our volunteers have a massive reach when it comes to promoting walking, offering over 500 led walks a week. These include many shorter, easier and urban walks as well as more traditional countryside rambles. While most Ramblers walks are primarily intended for Ramblers members, a significant number are free to the public and anyone can attend several introductory walks on a trial basis. Membership is not expensive and funds the Ramblers' wider work to promote walking and protect and enhance the walking environment.

We have a number of specific community-based walking promotion projects, such as our Lottery-funded Get Walking Keep Walking project working in deprived areas of several English cities including London to help inactive people discover the benefits of walking, including people from BME communities, families with young children and those with mental health problems. These services are provided free to users.

The Ramblers is a well-known, respected and influential organisation with a well-recognised brand and an excellent media presence supported by a professional and effective team. We are adept not only at achieving coverage for our campaigns around the walking environment but, increasingly, softer and more lifestyle-focused coverage including in the tabloid press. We have numerous "celebrity" supporters including our current president, media personality Julia Bradbury.

In Greater London we have around 12,000 members of whom around 1,500 are active volunteers. There are 23 Ramblers Groups including one of our very biggest, Metropolitan Walkers, with almost 1,000 members. These Groups offer a very varied walks programme including free shorter walks for the public and numerous urban options, with about 20 walks a week within London itself. The voice of our members and volunteers across London is the Ramblers Greater London Forum (RGLF), which acts as the principal policy contact for matters such as London-wide

consultation and coordinates cross-London information and events. RGLF is very keen to support the Year of Walking. There are also two Get Walking Keep Walking projects in London, covering the boroughs of Hackney and Tower Hamlets; and Lambeth, Lewisham and Southwark, with dedicated staff based in the boroughs, supported by their own volunteers, and with extensive community networks encompassing a range of local organisations and projects.

We have a long record of effective work in London. Our volunteers championed arguably London's most celebrated piece of walking infrastructure, the Thames Path, and were instrumental in founding the London Walking Forum which in the 1990s laid the foundation for much of Transport for London's later work on walking, including pioneering the majority of the Strategic Walks Network. This year London volunteers are helping celebrate our 75th anniversary by staging a complete relay walk around the London Loop in October, coordinated by RGLF.

Ramblers has a number of key initiatives of relevance to the proposed Year of Walking:

- **Group Walks Finder branding**. Most walks led by Ramblers volunteers are listed online in our Group Walks Finder at www.ramblers.org.uk/walksfinder. In partnership with the Department of Health's Change4Life campaign, all walks of 8km/5 miles or less are now branded with the Walk4Life brand and it will be possible to search the database for only these walks. Similar major branding initiatives are possible based on regional locations of walks, for example identifying all or some walks in Greater London.
- **Get Walking Day**, our flagship annual national walking event, which in 2011 takes place on 15 May. This is supported by Ramblers volunteers across the country putting on free, short, easy, family friendly led walks and special events organised by our Get Walking Keep Walking projects.
- **Get Walking Keep Walking**. This is currently funded until December 2011 in Lambeth, Lewisham, Hackney, Southwark and Tower Hamlets, and some benefits are more widely available through the project website at getwalking.org.uk, which will shortly include a MyGetWalking function including an online walking log enabling users to track their progress against our 12-week walking plan. Another important resource is our library of mapped and described routes, developed, checked and risk assessed by trained volunteers. Currently we have around 250 routes in our London boroughs and many of these are now being added to the website. We are keen to extend coverage of these routes to other parts of London.
- **Get Walking for the Games**, our Inspire-branded project offering short, easy led walks with a London 2012 connection, including visiting venues and using the 2012 Greenways.
- **Trail Tales** and **Families Walk4Life**. We have developed a set of imaginative materials for promoting walking and encouraging takeup of the 12-week programme by families with children 2-11, including storybooks and children's walking logbooks. These will shortly be available online. Subject to funding, we will also be using them in some locations in London to help deliver facilitated walking programmes through SureStart Children's Centres.
- **Festival of Winter Walks**. This runs annually from Boxing Day to 2 January and is the Ramblers' longest running national event, always enjoying excellent publicity.

- **Promotional events**. Ramblers volunteers regularly participate in many other events and festivals, from local community fairs to big events such as the Thames Festival, running stands and handing out literature and promotional items. Get Walking Keep Walking projects also attend events and run stands in community venues, usually to promote the Get Walking packs.

Key themes of 2011

We believe there should be two key objectives of the Year of Walking:

- **Visibility** – walking needs to be made very public and very visible, celebrating achievement, promoting improvements and infrastructure, offering major opportunities for participation by the public and stakeholders and keeping a high media profile.
- **Integration** – a key objective should be to embed the walking agenda and awareness of walkers' needs across London at all levels, from big London-wide statutory bodies to small local charities, and draw them all into committing to walking.

Visibility

Ramblers would be delighted to work with TfL and other partners to enhance the visibility of walking in London by coordinating and participating in events. Much could be done to promote through existing channels, for example through the Group Walks Finder as mentioned above. The Ramblers is well placed to help coordinate many of these activities. However all proposals are subject to further discussion and to available resources, which are not limitless for us. TfL and the Mayor need to be prepared to fund partner initiatives where necessary and appropriate.

- A series of major participatory events should be run throughout the year, focusing on London's existing quality walking environments – the Strategic Walks Network and other promoted walking routes, the 2012 Greenways, Key Walking Routes, Get Walking routes and Walk4Life Miles, Legible London pilot areas, squares, parks and public spaces. These should allow as much flexibility for participation as possible, enabling both groups and individuals to enjoy them in their own way. This could include big event-driven led walks and relays, individual challenges (tick off the walks you've done in your district or the places visited on foot), sponsored walking for charities of your choice, themed walking (pushchair pushes etc), commuter walks (targeting transport interchanges and inviting people on walks), street openings. The private sector might be involved in shopping walks, walks between particular shops/ pubs, lunchtime walks for employees. So long as it's showing off what a good place to walk London is and conforming to the theme that everyone walks and benefits from improvements to walking.
  Ramblers would be delighted to support such an initiative by encouraging volunteers to run appropriate walks, for example walks on the Strategic Walks Network on selected weekends.
- Ramblers led walks in London could be branded to tie in with the promotion. As mentioned above this is a relatively easy matter using the Group Walks Finder.

- High profile public figures and celebrities, including the Mayor and other political figures, should be encouraged to participate, champion the importance of walking and the programme and join in events.
- To ensure there is something near everyone that they can do on their own, Get Walking routes should be rolled out across the boroughs, particularly focusing on routes around transport interchanges and health venues.
- TfL should place its long tradition of imaginative and inventive marketing at the service of walking, for example through Underground poster art, “Poems on the Path” as a variant of Poems on the Underground delivered through mobile phone technology etc.

Integration

- There are numerous opportunities for TfL to integrate walking and the walking environment more into its general transport information, including:
    - Supporting the Ramblers’ Putting London on the Map campaign to encourage Inner London boroughs to produce definitive maps. See separate submission.
    - Showing the Strategic Walks Network and other important routes, and perhaps locations of Legible London monoliths, on bus maps and local information maps at transport interchanges
    - Improving walking information on Journey Planner and ensuring it includes as many good quality off-road routes as possible.
    - Producing a Tube and/or London Connections map showing walking times between stations
    - Offering travel refunds or credit on Oyster at flagship walking events
    - Integrating route-based way finding of SWN and other key routes with Legible London (currently routes such as the Thames Path and Jubilee Walkway are not shown comprehensively on LL signing).
    - Publicising alternative walking routes and working with Ramblers to provide “walking tube” led walks in connection with Tube and rail closures.
- A London-wide “Walking Awareness” accreditation scheme encouraging other organisations to integrate supporting and promoting walking into their work, including employers, not-for-profit organisations and contractors. This could include ensuring walking information is included in transport information produced by the organisation; ensuring construction works take account of walkers’ needs; participating in walking at work schemes for staff. This is a major task but it could begin during 2011 with a well-publicised consultation on what makes an organisation walker-aware and walker-friendly.
- Ensuring the year’s flagship walking events and challenges are designed to allow maximum participation from and are effectively promoted to a wide range of organisations including grassroots and community groups.
- Working strategically with London’s key walking stakeholders including the Ramblers, other third sector organisations and the health sector to ensure a fully coordinated Year of Walking.

London Assembly Transport Committee Submission Paper
'Putting London on the Map' – the Ramblers Definitive Map Campaign

Introduction

All public rights of way (footpaths, bridleways, and byways) you walk on in England and Wales are protected; no one is supposed to build on them, obstruct them or divert them without first going through a strict legal procedure. However, the same rules cannot always be made to apply to public paths in inner London, because borough councils are not required to record public rights of way on definitive maps. In any other authority if a path is shown on a definitive map it is conclusive evidence it is a public right of way.

If the London Assembly is serious about encouraging people to walk more, and to deliver a "sustained increase in the number of journeys made on foot", they must first ensure that the footpaths are there for people to walk on. Any planned development of 'key walking routes' should also take into account that in inner London, without the proper protection, these paths could be obstructed, diverted or stopped up and councils would not be able to act to rectify the situation.

The Ramblers, Britain's walking charity, is encouraging its members to lobby their local inner London councils to create and maintain definitive maps. We are urging all 120,000 Ramblers members, plus any interested members of the public, to help us 'Put London on the Map' as part of a nationwide campaign. The Mayor of London, Boris Johnson, has said: "I will encourage the inner London boroughs to produce definitive maps of rights of way within their boundaries where they feel it appropriate". Although the Ramblers welcomes Boris Johnson's commitment to the campaign we are urging the Mayor to prioritise this mapping work alongside his plans to 'promote the health and environmental benefits of walking', and for the introduction of definitive maps in inner London boroughs to form part of the workload for the 2011 Year of Walking.

Definitive Maps in Detail

Outlined below is information concerning what a definitive map is, how paths are recorded on them, and why London is excluded from the relevant legislation. There is also practical information on how inner London boroughs should go about creating definitive maps, and the help that Ramblers volunteers can provide to ensure this work is conducted in a cost-effective way.

An Introduction to Definitive Maps:

A definitive map is a statutory document which must be produced and kept up to date by every county council or unitary authority (except inner London Boroughs). It is meant to depict every single right of way in an authority's area, and should be accompanied by a document called a definitive statement, which records the legal path width, any limitations (such as gates) and the nature of the rights (i.e. whether there's a right of way on foot, by bicycle, or on horseback for example) that exist over the ways shown on the map. It is important to record rights of way in this way because the conclusivity of the definitive map provides protection for them, as it means an authority that wishes to take action over a problem can do so in the sure knowledge that the way is public.

Definitive maps are public documents and must be available for the public to view at surveying authorities' offices. There is no charge for viewing a definitive map, but authorities may charge a

reasonable amount for photocopying. Some authorities have created online versions of their definitive map.

Any person can make an application to have the definitive map modified if he or she has evidence that the map is wrong or incomplete. This change occurs by the making and confirmation of a definitive map modification order (DMMO). Claiming an unrecorded right of way helps to ensure the right is protected for the benefit of the public and future generations.

There are many other reasons that the creation of a definitive map for inner London borough councils would be beneficial:

- It saves time and money if there is any dispute about the existence of a public right of way because the definitive map is conclusive evidence of the existence of the paths which it shows.
- It reduces conflict because all interested parties have a clear idea of where footpaths are.
- It facilitates development—planning officers and developers can go to the map and see where there are public rights of way so that they can be incorporated into plans, and considered when planning applications are being approved. This helps to avoid objections and disputes later on in the planning process.
- It ensures that the routes are shown on Ordnance Survey maps so that people know where they are. Currently all Ordnance Survey maps contain the disclaimer "the representation on this map of any other road, track or path [not explicitly depicted as rights of way in the key] is no evidence of the existence of a right of way". This disclaimer applies to footpaths in inner London: so a path could be shown on the Ordnance Survey map, but may have been diverted, stopped up or obstructed, and so would be unusable. Depiction of paths on a definitive map will hugely benefit tourists and visitors to the capital.

<u>Why is inner London excluded from legislation which requires the creation of definitive maps?</u>

The exclusion of inner London from relevant legislation is really due to a historical anomaly. When definitive maps were put into effect by the National Parks and Access to the Countryside Act in 1949, the focus was on rural paths. However, over time, the value of urban footpaths for exercise and recreational activity became recognised, and the Ramblers began to lobby for definitive maps to be extended to large towns. The lobbying was successful and the Wildlife and Countryside Act 1981 extended definitive maps to all areas, except inner London. All other cities are now obligated to produce definitive maps due to the extension of their statutory duty. The fact that inner London does not, seems to simply be an oversight when the legislation was enacted.

<u>Examples of paths in London:</u>

It is a common misunderstanding that there are no footpaths in inner London, and so there would be nothing to map. Yet inner London contains within its boundary many footpaths. Very many highways too narrow for vehicles in London are footpaths; the dozens of alleyways that connect one road to another are also footpaths. So are many of the paths that go through London's parks and open spaces, or run beside the rivers. All that is meant by 'footpath' is a path on which there is a right of way on foot. People think of 'footpaths' only as paths which go through fields, and over stiles and plank-bridges, and by hedges and farmsteads. But this is not always the case. Urban paths are public footpaths too, and, while they are hardly under threat of being ploughed or obstructed by bulls or wire, they are just as much prey to the developer or people wishing to block or obstruct

them. Depiction on the definitive map would give them far more protection from that kind of obstruction.

The picture below shows a path in Camberwell which for many years was used by members of the public as a handy, safe and pleasant link between two streets. Then the landlords of a neighbouring pub decided to place benches and chairs on the route, and cars began to park there too. So members of the Camberwell Society looked to their Council to take action. However, because this path is not shown on a definitive map, as the council are not required to produce one, these obstructions could not easily be removed. As a result, this much used path became unusable – forcing people to find alternative routes.

A path long in Greenwich, used as a convenient off-road route by local residents, has been completely obstructed by a wall, preventing use. The council say that because they have no record of any public status, they cannot force the wall's removal: so this useful path will be lost forever. Anywhere else in the country, users would have been able to test the way's status by applying (with their evidence of use) for it to be added to the definitive map. But not in Greenwich, since there is no definitive map.

In contrast with the above examples, in the outer London borough of Ealing (which is required to produce a definitive map), when developers threatened to block a footpath in 2007, members of the public were able to make an application to get the path added to the definitive map. This application was successful, and so the path remains open.

<u>The Practical Creation of Definitive Maps in Inner London</u>

We realise that the creation of a definitive map may not be at the top of the priority list for most inner London councils, especially in this financial climate. However, it actually should not cost the councils very much to introduce definitive maps in inner London, because all that would be required would be for each borough to pass a resolution and to make one single order adding one single footpath to the definitive map.

The majority of the work involved with the production of a definitive map will be in the actual surveying and mapping of the rights of way. But the paths can be added one by one. Just one path being added would create a definitive map, albeit incomplete, in each borough. That in turn would then provide anybody with the easy means of proving that any challenged right of way actually exists, i.e., by applying for it to be added to the definitive map. Then by degrees all the rest of the paths could be added – theoretically at least – either by application from individuals or by research by the boroughs themselves. If funding is limited this will not happen fast. It may not happen at all. But even if it never does, people can still apply for contentious paths to be added, and it is to be hoped that the small amount of funding to process a claim could sometimes be found. The ability of an individual to apply for a path to be added to the definitive map, when a route is under threat so that its existence as a right of way can be tested, is a key aspect of the definitive map legislation.

The Ramblers has a long history of training and supporting volunteers in both urban and rural environments; this includes providing support on advice on mapping paths and working with council staff. In other cities, such as Birmingham for example, many volunteers participated in the project to create the definitive maps. The Ramblers is offering to assist councils with this mapping work, and will provide a workforce of enthusiastic and trained volunteers to help with this process.

Conclusion

By launching the 'Putting London on the Map' campaign, the Ramblers will encourage all inner London borough councils to create their own definitive maps. But the Ramblers will additionally lobby government to change legislation so as to give the duty of creating definitive maps to inner London borough councils, like every other area in England and Wales.

The Ramblers is urging the London Assembly to prioritise the creation of inner London definitive maps as a key initiative for next year. This work will ensure that it is easier to walk in London, as paths ranging from local shortcuts between houses, paths across parks and 'key walking routes' promoted by the Mayor will all receive the same level of protection, ensuring that they will be around for the convenience and enjoyment of generations to come.

Walking rapporteurship by the London Assembly

Sustrans submission

August 2010

compiled by Greg King

sustrans
JOIN THE MOVEMENT

Sustrans is the charity that's enabling people to travel by foot, bike or public transport for more of the journeys we make every day.

- Our vision is a world in which people choose to travel in ways that benefit their health and the environment.

- Our mission is to work everyday on practical and imaginative solutions to the transport challenges affecting us all.

As a sustainable transport charity, our aim is to transform the UK's transport system and culture so that:

- the environmental impacts of transport, including its contribution to climate change and resource depletion, are significantly reduced

- people can choose more often to travel in ways that benefit their health

- people have access to essential local services without the need to use a car

- local streets and public spaces become places for people to enjoy.

In order to achieve this transformation, our objectives are:

- to make local environments safe and more attractive for walking and cycling

- to support and encourage individuals to make more sustainable and healthy travel choices, through motivational and information programmes

- to influence policy and practice by communicating the outcomes of our own work, and the benefits of sustainable and healthy travel, to a wide audience.

Sustrans is the charity behind the award winning National Cycle Network, Safe Routes to Schools, Bike It, TravelSmart, Active Travel, Connect2 and Liveable Neighbourhoods, all projects that are changing our world one mile at a time.

To find out more visit or call: www.sustrans.org.uk 0845 113 00 65

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Introduction

Sustrans welcomes the opportunity to respond to the walking rapporteurship exercise being carried out to by the London Assembly.

This submission briefly sets out what Sustrans regards as the key challenges, opportunities and assets for developing walking in London. We then put forward a number of recommendations for improving conditions for walking.

In addition to this submission, Sustrans is participating in the rapporteurship exercise through a site-visit with Caroline Pidgeon and Jennette Arnold and attending the stakeholder meeting.

Key challenges

Traffic volumes

Many of London's streets suffer from high levels of traffic, which is known to be a clear deterrent to walking. Studies from as far back as the 1970s and 80s, such as Appleyard's work on 'livable streets'[1], show that higher motor traffic levels are associated with urban areas that are not conducive to walking. More recent guidance, including Manual for Streets (DfT, 2007) promotes traffic volume reduction measures as the first priority in seeking to improve streets and facilitate more active travel.

Traffic speeds

While traffic speeds are relatively low in much of central and inner London, high traffic speeds remains a problem in much of the rest of London, including in many residential areas. As with traffic volume, speeding traffic seriously impacts on the pedestrian experience and deters people from walking. Reducing traffic speed is cited as the second priority for improving conditions for walking in Manual for Streets.

Fear of personal safety

A knock-on effect of high traffic levels and speeds - and the consequent suppressed levels of walking – is increasing feelings of vulnerability in public places. Parents, worried about the threat from traffic, are less inclined to allow their children to play outdoors. Roads with high traffic volumes or speeds deter walking and frequently create barriers to movement, particularly for the elderly, the young or those with mobility impairments. Speeding traffic and anti-social parking are repeatedly cited as major concerns and fewer people actively present in their streets correlates to increasing fear of crime, especially among more vulnerable people[2]. A fifth of all Londoners do not feel safe walking alone in their local area.[3]

Poor quality environments

As the Mayor's Transport Strategy recognises many of London's streets and public places suffer from poor design and are not conducive to encouraging higher levels of walking. Narrow pavements, significant level changes at road crossings, pedestrian guard-railing which does not allow people to go where they want, and poorly located highway infrastructure on the pavement. All of these serve to reduce the appeal of walking and create the impression that walking is a mode subordinate to all others.

Key opportunities and assets

Popular mode for short journeys

Both the popularity of walking and the profile of journeys in London suggest that, with the right physical environments and encouragement, there is significant potential for more journeys in London to be made on foot.

London is a city of short journeys. In much of the capital half of all car journeys are under 3 km (2 mi) [4], and more than quarter of all trips under 1 km (0.6 mi) are by car[5]; distances that most people could walk without difficulty.

Surveys of Londoners find that walking is the mode of travel that they enjoy the most[6]. And unlike most other modes of travel, walking is a leisure activity in its own right. Indeed it is the UK's most popular leisure activity and the majority of walking trips in London are for leisure and shopping purposes[7].

A wealth of great places

Whilst some areas of the capital are blighted by high traffic volumes and speeds, London also has many places where walking is very appealing. London's wealth of parks and green spaces, riversides and other traffic-free environments mean that all areas of London are in reach of places that are good for walking.

Recommendations

Improve routes to and within London's best walking environments

Greenways are safe, quiet routes which connect residential areas to parks and green spaces and interlink with other route networks. They are for use by walkers, cyclists, wheelchair users and others who may feel vulnerable on or near busy roads, for recreational or practical journeys.

London's greenways programme (which has been delivered by Sustrans in partnership TfL, the London boroughs and other authorities over the last few years) originated in a cycling-focused work-stream.

Nevertheless, it has always been Sustrans' intention that greenways should serve the interests of walkers and seek to facilitate an increase in walking levels. Indeed, monitoring of greenway usage, both around the country on the National Cycle Network and in London, has shown that greenways are very popular with walkers.

Recent monitoring of greenway sites in London found that just over 60 percent of users were on foot and that greenways encourage people to walk more, with 49 percent of users saying that they are walking more than they were are year ago, and 51 percent saying that they intend to walk more in the next year.[8]

Surveys of Londoners recently found that *"New and improved walks for pleasure"* is the key policy that would encourage more walking.[9] By providing good quality routes in parks and green spaces, greenways improve conditions for walking in London's best pedestrian environments.

In addition, by improving routes between green spaces, and linking to residential areas, greenways deliver improvements to street conditions for both walkers and cyclists. Two examples of street improvements which benefit walking and cycling are raised road crossings and junction entry treatments. These improve on-street conditions for cycling by slowing traffic, whilst also improving the walking environment by providing 'at-level' crossing facilities which are more convenient for all walkers, and particularly benefit wheelchair users and others with limited mobility.

Sustrans recommendation: Champion the development and promotion of greenways across London as part of the Year of Walking.

Sustrans welcomes the commitment in the Mayor's Transport Strategy to deliver the seven Strategic Walk Network routes. However Sustrans disagrees that delivery of the Strategic Walks should be (as the MTS states), *"separate from, but alongside the development of, Greenways."*

There is an assertion, on the part of some of those involved in the development of the Strategic Walk Network that cycling should not be permitted on these routes. Sustrans believes that seeking to separate greenways and Strategic Walks development and not permitting any shared use in this manner is impractical and undesirable.

Many Strategic Walks are already part of the greenways network and are shared use for walkers and cyclists. Sustrans believes that when developing traffic-free paths for walkers and cyclists, the focus should be on the best outcomes for Londoners and seek to maximise access and permeability for both walkers and cyclists.

As with many of London's streets, some of London's open spaces suffer from low levels of usage, which can result in fear of crime. Sustrans believes that in such circumstances it is beneficial to facilitate and encourage use by both walking and cycling, in order to increase overall usage levels and thereby levels of passive surveillance.

Sustrans does not advocate cycling being permitted on every path and we recognise that in some locations, cycling is inappropriate. However, we argue that the decision to allow cycling or not on a particular path should be based on an analysis of local circumstances, rather than a blinkered adherence to the programme that it falls under.

In order to assess the appropriateness of specific routes for shared use, Transport for London commissioned consultants Atlkins to develop a tool for use by transport engineers. The tool, which has been developed and tested over the last 2 years and will shortly be available, provides a framework for analysing the suitability – or otherwise – of paths to be designated as shared. The analysis takes account of path characteristics, including width, gradient, surface and level of usage, then presents a rating which informs the decision to allocate as shared use.

Sustrans recommendation: When developing traffic-free routes for walking or cycling – whether they are Strategic Walks or greenways – the aim should be to improve access to green spaces for all users. Decisions to not allow cycling should be based on an analysis of local circumstances utilising the Atkins route assessment tool.

Sustrans acknowledges that people cycling too fast or in an inconsiderate manner on greenways can be frustrating or intimidating for other users, particularly walkers. To address this issue, the Royal Parks – with Sustrans' input – has developed a new type of signage for shared use paths, with the intention of promoting considerate cycling.

The signage comprises a modified shared use sign (sign diagram 956) with the pedestrian and cyclist symbols inverted and re-sized such that the pedestrian symbol is on top of and larger than the cyclist. This sign is accompanied with wording stating that considerate cycling is permitted, but that the path is an area of 'pedestrian priority' where cyclists should go slowly and give way to pedestrians.

Examples of pedestrian priority signage.

Attitudinal surveys of route users in Regent's Park where a path was converted to shared use on a trial basis, with the new sign design, found that people were overwhelmingly supportive of the scheme. 100 percent of cyclists and over 80 percent of walkers supported cycling being permitted.[10] Sustrans believes that such signage would be appropriate for use on all shared use greenways in London.

Sustrans recommendation: Promote considerate cycling and pedestrian priority on shared paths by advocating that the new shared use sign is used as standard on shared paths in London.

Sustrans welcomes the commitment in the Mayor's Transport Strategy to provide a safe, comfortable environment for walking, by, "*Encouraging the extension of a network of linked green spaces"*.

Whilst this presumably refers most directly to the expansion of the East London Green Grid (ELGG) to the All London Green Grid (ALGG), the greenways programme also makes a valuable contribution to this. Over the last few years, greenways networks have been identified for development across every London borough and are based primarily on routes which interconnect green spaces.

Sustrans recommendation: The Year of Walking should promote synergies between the development of the ALGG and greenways, as well and the Strategic Walk Network and advocate that agencies and borough departments involved in these programmes work together closely in their delivery.

Improve street environments for walking, including through traffic reduction

Sustrans fully supports the Mayor's commitments to improve conditions for walking through physical design improvements to streets, including removing guardrails and other obstacles to movement. In this regard, Sustrans advocates making greater use of pavement build-outs to locate highway infrastructure. Placing features, such as street trees in pavement build-outs, rather than on the pavement itself is beneficial in two respects; by providing a clear, unobstructed pavement, and – by modifying the curb-line - creating a traffic calming feature.

Sustrans also particularly welcomes the commitment in the Mayor's Transport Strategy to improve public realm and the walking experience by, "*Seeking to manage car access to residential areas, through physical or design measures, to create pleasant and safer walking environments."* As noted earlier, a significant determinant of the quality of the built environment and the appeal of an urban area for active travel is the level of traffic.

To reduce motorised traffic volumes in specific locations, particularly residential areas and on strategic active travel routes, Sustrans advocates 'filtered permeability'. This promotes the use of modal traffic gates and 'point-no-entries' in appropriate locations to limit permeability for private motorised traffic and thereby reduce traffic levels in target areas, whilst allowing full permeability to active travel modes.

Sustrans believes that schemes to improve residential streets are most effective and beneficial when local residents are included in the process. To this end, Sustrans has developed DIY Streets, an innovative programme which involves local residents directly in the improvement of their streets. The programme helps residents to re-design their own streets affordably, putting people at their heart, making them safer and more attractive places to live. DIY Streets replicate the positive successes of home zones, but at a lower cost and with communities driving the process.

Between 2007 and 2011 hundreds of residents in 11 streets across England and Wales participated in Sustrans' DIY Streets Project, including three schemes in London. Monitoring of completed DIY Streets found significant reductions in traffic speeds, which resulted in 81 percent of DIY Streets residents now finding their road pedestrian friendly and 13 percent saying that they are encouraged to walk more.[11] The projects were found to particularly benefit children; resident surveys in Clapton Terrace, Hackney, prior to the DIY Street scheme found that 80 percent did not feel that the street was safe for children to play in, but this dropped to 32 percent after the project.[12] Significantly, analysis of the pilot DIY Streets found that the programme is very good value for money. Overall, the projects had similar outcomes to homezones – in terms of residents perceptions of the benefits – but this was achieved at less then 10 percent of the cost of typical homezones.[13]

A major new DIY Streets project has recently got underway in the London Borough of Haringey. Unlike the trial schemes, which tended to focus on a single street, the Haringey project addresses a whole neighbourhood. The project, which will run over two years, will enable communities to redesign their streets so that they can function as lively public spaces that are safe, attractive to play and socialise in and to travel through. This sits within the boroughs wider agenda of promoting walking and other sustainable transport modes.

Sustrans recommendation: Promote innovative schemes which improve street environments and reduce traffic volumes, including Sustrans DIY Streets

Expand 20mph speed limits

As noted, as well as traffic volume, speed is a key determinant of the appeal of an urban environment for walking. Sustrans believes that local planning and transport policy should reflect this principle by providing guidance on speed limit policy locally, including promoting the expansion of 20mph speed limits.

As described above, Sustrans DIY Streets projects are successful in reducing speeds on specific streets. In addition, Sustrans advocates a wider-scale adoption of lower speed limits. We supports the recommendation of the London Assembly in the report, *Braking Point: 20mph Speed Limits in London*, that advocates borough-wide speed limit reductions on residential streets[14].

As well as increasing the appeal of walking and cycling[15], the wider introduction of 20mph speed limits on residential streets has a clear road safety benefit. A number of recent reports have shown the very significant role of traffic speed in the incidence and severity of road traffic collisions, particularly involving pedestrians and cyclists.

Recent analysis of cycle deaths in London found that virtually all fatal collisions occurred on roads with a speed limit of 30mph or higher[16]. The study also found that the introduction of 20mph limits on residential roads could produce a 50 percent reduction in pedal cyclist killed and seriously injured casualties[17].

Further research, recently published by the British Medical Journal, found that the introduction of 20mph zones in London over the last two decades have significantly improved road safety for users of all modes. This is especially true for children and young people, with the number of 0 – 15 year olds being killed and seriously injured reducing by half in areas where the speed limit is reduced to 20mph[18].

Sustrans recommendation: Champion the expansion of 20mph speed limits in London to improve conditions for walking.

Direct support for target groups

Sustrans supports the Mayor's commitment to promote the health and environmental benefits of walking, including through, *"Targeted information campaigns highlighting the benefits of walking"*.

In-line with this goal, Sustrans has recently developed a new form of active travel project in Tower Hamlets, as part of a partnership with Tower Hamlets Council and the local Primary Care Trust, to address low levels of physical activity and ill-health.

Ocean Estate 'Get Out, Get Active' is a local community project which combines aspects of both personalised travel planning and Community Travel/Active Travel programmes. The project attempts to help people expand their local horizons by giving them access to dedicated travel advisors and guided walks which encourages them to explore their community and region. It began in November 2009, with a project coordinator joining in Feb of 2010 and features;

- a weekly 2 hour travel advice surgery (12 people on average per week)
- guided walking tours
- cycle training
- outreach to local community
- a report on potential permeability improvements on the estate

Led walks are the most popular element of the project as the barriers to participation are low. Walkers are usually women who use walks as an opportunity to socialise and exercise. Many of the walkers are affected by health issues such as diabetes and bone and joint problems, and their doctors have often recommended them to do more physical activity. The project is managing to increase levels of physical activity and reach target groups that other types of schemes would not.

Sustrans recommendation: Investigate opportunities to expand the Get Out Get Active model elsewhere in London to increase levels of walking among other target communities.

[1] Livable Streets, Donald Appleyard, University of California Press, 1981.
[2] The British Crime Survey 2003/04, Home Office, 2004.
[3] Travel in London – report 2, TfL, 2010.
[4] Delivering the Benefits of Cycling in Other London, TfL and others, Feb 2010.
[5] Travel in London – report 2, TfL, 2010.
[6] Attitudes to Cycling 2009, Synovate for TfL, May 2009.
[7] Travel in London – report 2, TfL, 2010.
[8] London Greenways Monitoring Report 2009, Sustrans and TfL, April 2010.
[9] Attitudes to Walking 2009 Research Report, Synovate for TfL, April 2009.
[10] The Regent's Park Shared Use – Broad Walk Monitoring Technical Note for the Royal Parks Agency, Atkins Intelligent Space, Nov 2008.
[11] DIY Streets Project Review 2010, Sustrans, Aug 2010.
[12] DIY Streets Project Review 2010, Sustrans, Aug 2010.
[13] DIY Streets Project Review 2010, Sustrans, Aug 2010.
[14] Breaking point: 20mph speed limits in London, London Assembly, April 2009.
[15] London Cycling Design Standards, Transport for London, 2005.
[16] Analysis of police collision files for pedal cyclist fatalities in London, 2001 – 2006.
[17] Analysis of police collision files for pedal cyclist fatalities in London, 2001 – 2006.
[18] Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis, Grundy et al, British Medical Journal, Sep 2009.

DIY Streets
Project Review **2010**

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Foreword

DIY Streets is a Sustrans project in which we work closely with local communities and local partners to help residents re-design their streets affordably, putting people back at their heart and making them safer and more attractive places to live.

DIY Streets came about because, whilst we know that transport emissions and the way we travel affects our environment and our health, we rarely hear about traffic's impact on our communities. Speeding cars and nuisance parking are consistently top of the list when residents are asked about problems in their area.

Studies show that the more traffic in your street, the less likely you are to have friends and acquaintances amongst your near neighbours. In short, traffic is severing our communities, both literally and metaphorically.

We know the new Government in Westminster intends to support a strong civil society. This follows increased recognition over the past decade by UK Governments that communities want to be – and must be – involved in making decisions and solving the problems in their local environment.

We also know that thousands of people really want to see improvements to their streets. This project review shows that with targeted support and some expert advice, communities can make a real difference to the area just beyond their front doorstep.

We'd love to develop and expand this project further so, if you like what you see inside, turn to page 11 to find out how you can get involved with DIY Streets or a DIY Neighbourhood near you.

Malcolm Shepherd
Chief Executive, Sustrans

Sustrans' DIY Streets project is generously supported by:

Esmée Fairbairn FOUNDATION

along with Transport for London and many local partners.

"Street design needs to be approached with creativity, matching the design to the place and the needs of the community. Every neighbourhood should have the chance to be a Sustrans DIY Street."
Wayne Hemingway, DIY Streets Advisory Panel member

Communities doing it themselves

Hundreds of residents in 11 streets across England and Wales are now benefiting from Sustrans' DIY Streets pilot project, which ran from 2007 to 2010. This review presents this successful project's encouraging findings, with qualitative results throughout drawn from door-to-door resident surveys conducted before and after the DIY Streets changes.

40% of residents across all of the streets are socialising with people that they didn't before the DIY Streets changes.

in Ellacombe Road, Torquay, average traffic speeds dropped from **25 mph to 18 mph.**

81% of DIY Streets residents now find their road pedestrian friendly.

at our DIY Street in Sheffield,
a third of residents agree that there is now

less anti-social behaviour

and vandalism.

67%

of DIY Streets residents now find their street greener and more attractive.

36%

of DIY Streets residents (up from 9%) now find their street safe for children to play in

13%

of residents say that living on a DIY Street will encourage them to walk more.

Reducing speed through design

When we arrived at Ellacombe Road in Torquay, its residents' key concerns were speeding traffic; problematic crossing points; littering; 'dead' space at the junction; and anti-social activity in the neighbouring park. We worked together with the residents and Torbay Council to address these issues, and the results below speak for themselves.

Before DIY Streets:

- 21% of residents felt the street was pedestrian friendly
- 96% found the street unsafe to play in
- 4% felt that there was sufficient space to socialise in.

After Sustrans' help:

- 80% of residents now find the street pedestrian friendly
- 43% now think that there is sufficient space to socialise in, with nearly 40% of residents now spending more time with neighbours and/ or the local community
- 80% of residents agree that traffic speeds have been reduced.

"Sustrans challenged us to look at alternative designs and provided a project which achieved a lot for a relatively small cost."
Patrick Carney, Service Manager, Torbay Council

Bringing people **together**

If your street is used as a 'rat run' by speeding traffic, you'll appreciate the problems of Clapton Terrace in Hackney. With 80 properties (many divided into flats), residents' key concerns were speeding traffic, and the large number of bins blocking the pavement.

After Sustrans' help:

The community is now stronger

68% of residents are now socialising with people in their street with whom they hadn't before the project. 59% of residents are now spending more time with neighbours and/ or the local community.

Residents feel that the street is more pedestrian friendly

Before DIY Streets, 54% of residents found their street pedestrian friendly. After DIY Streets this increased to 76%.

Residents can let their children play out

Before DIY Streets, 80% did not feel that the street was safe for children to play in. This dropped to 32% after the project.

The street is now a social space

Only 16% of those surveyed agreed that there was sufficient space to socialise with family and neighbours, this increased to 48% after DIY Streets.

"As a residents group, DIY Streets helped us to listen to each other. We researched, discussed, disagreed and proposed all sorts of ideas. We held our first ever street party when the project was completed and we plan to keep on celebrating our street."
Melaina, Clapton Terrace resident

DIY Streets **works**

As a way to understand how well the streets performed before and after the changes, we used CABE's Spaceshaper, a practical tool that measures the quality of a public space before investing time and money into it. It works by capturing the perceptions of professionals involved in running a space, as well as the views of the people that use it.

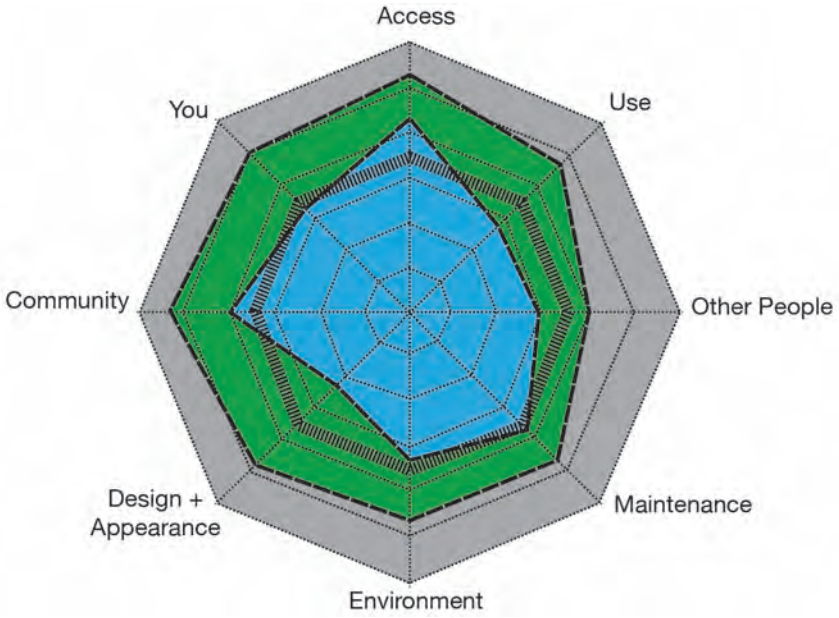
This spider diagram of Manchester's DIY Street shows how residents and professionals perceived the space both before (blue) and after the project (green).

The solid line is neutral, so a dotted line outside it shows that people think their street is performing well in that category.

The number of Penn Street residents who now consider their street a space in which you can socialise has increased from 5.5% to 30%. The number of residents who find their street safe for children to play in has quadrupled, from 9% to 36%.

Overall, as the diagram shows, perceptions of the street have improved dramatically with Sustrans' help.

Penn Street, Manchester

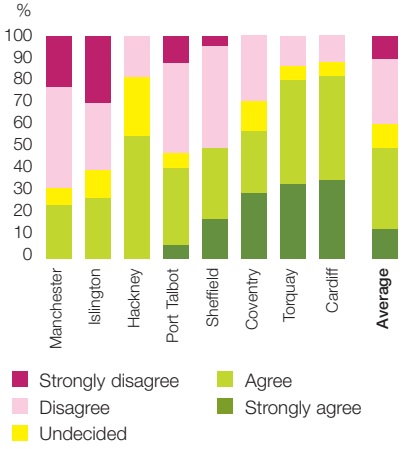


Value for money

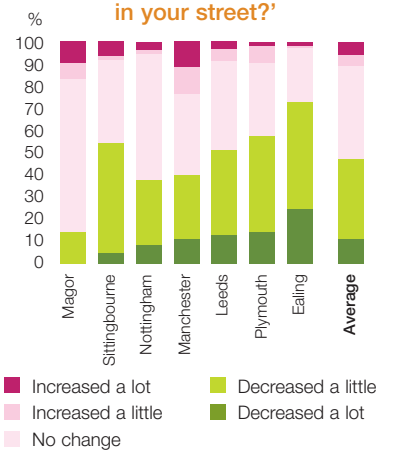
This Sustrans project set out to see if there was a way of providing the same benefits as a home zone in a more affordable, cost-effective manner. We discovered that with DIY Streets, there is. The following charts compare our DIY Streets evaluation with that of seven home zone schemes in England and Wales*.

Residents had similar perceptions of the impacts of both schemes, although each project's average costs are significantly different. **Research has found that home zones cost £1,000 per square metre** whereas pilot DIY Streets averaged just £77 - less than 8% of a home zone's cost.

'Since DIY Streets, the speed of traffic has been reduced'



'Since the home zone was introduced do you think vehicle speed has increased or decreased in your street?'



*TRL, 2006: Pilot home zone schemes: Summary of the schemes. (nb: though the evaluation questions were not identical, relevant parallels can be drawn.)
**Biddulph, M. 2008: Reviewing the UK home zone initiatives. In Urban Design International Vol. 13, pp121–129.

Successful partnerships

Midland Heart Housing Association worked with us at Iden Road cul-de-sac in Coventry. Their regeneration remit is to engage with residents and to support them in devising solutions to their own street's problems.

The residents' main concerns were a lack of greenery, and the run-down character of communal areas. Before DIY Streets, none of the residents would have socialised with family or neighbours in their street. After the project, 43% said they would.

Creating a sense of place

Artworks were installed in five of Sustrans' pilot streets. In Iden Road, residents were involved at every stage, from writing the artists' brief and selecting the artists, to choosing and positioning the final pieces. Artists Thrussell and Thrussell were selected and created a bee tree-guard and an ornamental herb garden.

87% of residents feel that the artwork improves the street, and 93% think that the street is greener and more attractive following the project.

"Sustrans has the expertise to talk to local authority partners, which compliments our community engagement programme. DIY Streets' improvements are amazing and the residents now believe change can happen if they work together."
Elaine Shirley, Midland Heart Housing Association

Get **involved**

To find out more:

- contact the team on **0117 915 0244** or email **liveableneighbourhoods@sustrans.org.uk**
- visit the webpages **www.sustrans.org.uk/diystreets**

Sustrans can provide full project management and delivery, or assist with specific aspects such as innovative design or leading on community engagement. DIY Streets can be adapted to work in a range of settings, including:

DIY Streets in neighbourhoods
Working across a number of streets to address issues ensures that problems are addressed, not displaced. Combined with activities to encourage walking and cycling, it is a holistic approach to tackling transport in communities.

DIY Streets with car club promotion
An innovative solution where car club vehicles and DIY Streets treatments are implemented together, in partnership with Carplus or a local provider.

DIY Streets for schools
Bringing the school and residential communities together to deliver street changes that work for both parties.

DIY Streets in partnership with Housing Associations
The pilot showed the benefits of strong partnership working; DIY Streets can help housing providers meet strategic goals for neighbourhoods and the public realm.

The residents of Beechcroft Road in Oxford have taken the DIY Streets concept most literally – by designing this pattern and painting it onto the road themselves during a street party.

Sustrans is the charity that's enabling people to travel by foot, bike or public transport for more of the journeys we make every day. Our work makes it possible for people to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in.

It's time we all began making smarter travel choices.
Make your move and support Sustrans today.

www.sustrans.org.uk

Sustrans, 2 Cathedral Square, Bristol BS1 5DD. Call 0117 926 8893

Photographs courtesy Sustrans staff and James Thomson (p7).

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London Visual Impairment Forum's & The Guide Dog's for the Blind Association's Initial Written Submission to London Assembly's Transport Committee's Investigation into Making it Easier and Safer to Walk in London

Introduction:

London Visual Impairment Forum (LVIF) comprises voluntary (not for profit) organisations working with, and on behalf of, blind and partially sighted people in Greater London. There are approximately thirty eight local, London wide and national organisations actively involved.

There are 39,315 people registered as blind or partially sighted in London. However, it is likely that there are between 78,600 and 117,900 people that have low vision who have not registered. The majority of blind and partially sighted people lose their vision when over the age of sixty, at a time when they may also be facing additional disabilities, such as hearing impairment, or conditions which add to their mobility difficulties.

All journeys by public transport start with a walk to a bus stop or underground or rail station. Therefore An accessible pedestrian environment is crucial to enable blind and partially sighted people to travel freely around London using buses and trains.

London VI Forum welcomes the opportunity to provide this initial written submission to the London Assembly's Transport Committee investigation into making it easier and safer to walk in London. The response has been prepared in collaboration with The Guide Dogs for the Blind Association, (Guide Dogs for the Blind).

The response follows the structure provided in the invitation letter.

- **Which of the Mayor and TfL's current initiatives to promote walking are resulting in more people walking or which might deliver a sustained increase in walking in the future? Which should be prioritised in 2011 and why?**

LVIF believes that the following proposals in the Mayor's Transport strategy would improve the pedestrian environment and help make walking easier for blind and partially sighted people:

1) Proposal 34 has a welcome commitment to pavement maintenance. Poor and uneven pavements present a major trip hazard, causing unnecessary falls by blind and partially sighed as well as other older and disabled pedestrians.

2) Inconsiderate cycling is also a significant problem for blind and partially sighted people, particularly when cyclists ride on pavements. We therefore support the proposals in paragraph 462 and proposal 54 for the introduction of cycle training for people of all ages and request that it includes disability awareness training. Guide Dogs for the Blind and other members of LVIF would welcome an opportunity to be involved in designing the training. This would be especially welcome in the context of the newly launched cycle hire scheme in London.

3) We support the Mayor's call for a licensing regime for pedicabs, (paragraph 466 and proposal 56 of his Mayoral Transport Strategy). However, this licensing regime must address acceptable usage ie that pedicabs are not allowed in the same areas in which taxis and private hire vehicles are not permitted.

4) We welcome point c) on street audits and point e) on training for those involved in street design in Proposal 61 of the Mayor's Transport Strategy. We hope that measures that meet the needs of blind and partially sighted pedestrians will be included. We support moves to enhance pavement space and remove unnecessary guardrails and other obstructions, as this will make it easier for blind and partially sighted people to use the pedestrian environment.

5) We welcome measures to improve signage including the Legible London initiative, as partially sighted people often struggle with existing signage.

6) We support the introduction of ISA technology to limit the speed of vehicles and the introduction of 20mph speed limits, (as set out in Paragraphs 506 and 7 of the Mayor's Transport Strategy).

What, if any, other initiatives should the Mayor and TfL adopt to make it easier and safer to walk in London and why? Please provide as much detail as possible, including what the initiative involves, where it is already happening (e.g. in London, elsewhere in the UK and/or abroad), which organisations are responsible, its cost and

how it is funded, and its measurable impact e.g. how many more people are walking as a result of the imitative.

- Guide Dogs & LVIF suggest introducing wayfinding systems that can be used by blind and partially sighted people to navigate London's streets and transport network, such as RNIB's REACT system or other systems using radio frequency identification technology such as the Tag Talk system being developed by Guide Dogs.
- Increase the number of controlled pedestrian crossings.
  Guide Dogs and LVIF are extremely concerned about TLl's announcement that, '145 traffic signal sites across London considered for removal'. If controlled pedestrian crossings are removed at the same time, blind and partially sighted people will not be able to cross these roads and access to the local environment will be greatly reduced. At present, there are not enough controlled crossings so more should be provided, not less.
- Good lighting on pavements and all pedestrian walk ways.
- Separate cycle lanes and enforcement of the Highways Act to prevent cyclists on pavements.
- Wider footways

What, if any other measure should the Mayor and TfL take to ensure the 'year of walking' delivers a sustained increase in walking?

We believe that the main issue that has to be addressed in order to make sure that there is a sustained increase in walking by blind and partially sighted people is to address the issue of shared surfaces and shared facilities for pedestrian and cyclists.

1. Shared space is a design concept which embraces a number of principles that chime well with the access and mobility needs of blind and partially sighted people:

   - reduced clutter;
   - reduced traffic volumes;
   - reduced traffic speeds;
   - quality streetscape materials; and
   - a more pedestrian-friendly streetscape

   However, where shared space is delivered by means of a shared surface design with no physical delineation between a safe zone for pedestrians and the area shared with other road users, the resulting streetscape is difficult, and in some cases, impossible for blind and partially sighted people to navigate and use safely.

2. This distinction and the need for a safe zone in a shared space is described in a report commissioned by Guide Dogs and published in 2008, Shared Space – Safe Space. Meeting the requirements of blind and partially sighted people in a shared space. (*Report prepared by Ramboll Nyvig for The Guide Dogs for the Blind Association).*

3. Guide Dogs has commissioned research and is also pleased to participate in Transport for London's research into identifying potential delineators that would be effective in replacing a traditional kerb in shared space designs.

Guide Dogs for the Blind will also be closely involved in the trials of corduroy tactile paving in the Exhibition Road. Guide Dogs has agreed to hold the Judicial Review proceedings against the Royal Borough of Kensington and Chelsea in light of this further research and certain other undertakings.

We agree with the Mayor's Transport Strategy, which suggests that shared space schemes should take on board the needs of blind and partially sighted people and be designed in consultation with them.

University College London's findings suggest that the kerb height could be reduced to 60mm and still be detectable by blind and partially sighted people. *(Accessibility Research Group, Civil, Environmental, and Geomatic Engineering University College London Effective Kerb Heights for Blind and Partially Sighted People, Research Commissioned by the Guide Dogs for the Blind Association (Guide Dogs), Childs CR, Boampong DK, Rostron H, Morgan K, Eccleshall T, Tyler N October 2009)*

To ensure all shared facilities where pedestrians and cyclists share a path are delineated as recommended in the guidance. TNS-BRMB has recently carried out a survey: 'The impact of shared surface streets and shared use pedestrian/cycle paths on the mobility and independence of blind and partially sighted people' which reports the views of 500 blind and partially sighted people in the UK about shared use pedestrian/cycle routes.
Findings from this survey include:

- Almost 9 out of 10 (86%) had concerns about shared use pedestrian/cycle paths.
- Half the blind and partially sighted people interviewed would go out of their way to avoid a shared use pedestrian/cycle path (28%) or were very reluctant to use them (22%).

4. What work are you currently engaged in at a borough level outside of work with the Mayor or TfL? Please give details of any programmes which might affect the 2011 Year of Walking.

Guide Dogs is currently engaged with the Royal London Borough of Kensington and Chelsea on their proposals for Exhibition Road, for further details see above.

This concludes the written submission on behalf of The Guide Dogs for the Blind Association and London Visual Impairment Forum.

Henrietta Doyle
(August 2010)

'Are plans to get Londoners walking on the right track?' a call from evidence from the Greater London Authority Transport Committee

Evidence from the Royal National Institute of Blind People (RNIB)

RNIB is delighted to be able to offer some evidence to this enquiry as some much of the issues are central to the independence of blind and partially sighted people. Many visually impaired people simply never go out alone i.e. they must rely upon a family member or friend and therefore fit in with someone else's time frame. Many of the reasons behind this are due to the 'unfriendly' nature of the pedestrian environment and a feeling that to go out alone is simply too difficult and dangerous.

It is very encouraging that the Mayor is looking at ways to make streets more welcoming to pedestrians as there is currently a very clear imbalance between the priority given to motorists compared with pedestrians. However, it is important that some solutions such as shared spaces are not viewed as the only means of achieving this.

The Mayor's plans for a 'pedestrian' hub in central London to be later developed is very much to be welcomed. However, we would not wish to see this or areas of the scheme being developed along the shared surface schemes already in existence at Sloane Square or Exhibition Rd in South Kensington. Such schemes have been shown to have the reverse impact to what the Mayor is hoping for i.e. blind and partially sighted people will no longer visit such areas as they no longer feel safe.

For any strategy to be successful in getting more visually impaired people walking there are a number of areas which must be taken into consideration. Currently there is an estimated 10% of pedestrian crossings which have neither an audible signal nor a tactile 'cone' in other words there are 10% of crossings which fail to meet the needs of blind and partially sighted people. This is a situation which must be addressed urgently as a consistent standard at crossings is vital. Unless the crossing is at a junction and the traffic flows mean it is not safe to have an audible signal we would want to see both an audible signal and a tactile cone at all crossing points.

In addition to the need for a consistent standard of crossings in terms of the signal they provide we would also want to see consistency demonstrated in how these crossing points are indicated. There seems to be a trend at the moment for Boroughs to adopt policies to tactile paving which run contrary to guidance provided by the Department for Transport.

What is tactile paving?

This raised or 'blistered' surface enables a blind person who uses either a cane or a guide dog to be able to locate a crossing point as it extends across the pavement. Furthermore it is a vital visual aid too as it is traditionally a pinkish colour. However, recent changes in some Boroughs have made it both harder to detect and to see. For example in the Borough of Newham they have reduced the amount of paving at controlled crossing points to such a minimum that is not possible to detect by use of a cane (please see attached picture). This situation is worsened by the change of colour to gray which blends into the general pavement environment (again see picture). This as with policies mentioned above is going to reduce both the level of confidence and independence of blind people who seek to use these crossing points.

Pavements are for people

We are increasingly concerned about the number of people who chose to cycle on the pavement. This causes distress to blind and partially sighted people who very often have no idea that there is a person on a cycle until they speed past. This is of course also very dangerous for other groups such as older people and young children. We firmly believe that many people are simply persuaded that it is too difficult and unsafe to go out alone so they either stay at home or only go out with another person. We would very much like to see the Mayor working with the police authority to raise this issue up the agenda of officers on the 'beat' who clearly currently view this as a trivial issue and have therefore de-criminalised this. Similarly many of our members have told us they feel the same attitude is adopted about cyclists who opt to ignore red lights at crossings. This again causes distress and fear and can even result in blind people becoming stranded as their white canes have been damaged by the cycle's wheels.

We would also like to see the Mayor working with the Boroughs to develop a coherent approach to advertising boards on the pavement. Currently it seems very clear that councils are unwilling to do any meaningful work in this area so consequently on most main streets in London there has been a proliferation of these advertising boards (A boards). The situation has become like an 'arms race' in that once one business has an A board(s) other premises in the area feel they must have one too. These cause considerable problems to blind and partially sighted people as by their very nature they are randomly placed so can not be anticipated in the way that fixed furniture, phone boxes Etc can be. As with cycling these will have over time a detrimental impact upon a blind person's confidence as to continue to encounter these will cause frustration and embarrassment and will again result in the view that going out alone is simply too difficult.

Conclusion

We very much welcome any initiative(s) which make it easier for people to walk in safety and with greater ease. However, we would strongly urge the Mayor to take into account the wider picture of transport policy and to look at ways in which it can be made safer for all who wish to undertake a journey whether on foot, on a bike or by car. Our evidence shows that many blind and partially sighted people never go out alone as they consider the environment to be too dangerous and un-friendly. Therefore any policy to make the pavement more pedestrian friendly and less busy is to be welcomed too.

For further information please contact Richard Holmes Campaigns Officer for London - 020 7391 2112
richard.holmes@rnib.org.uk

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We would also like to see the Mayor working with the Boroughs to develop a coherent approach to advertising boards on the pavement. Currently it seems very clear that councils are unwilling to do any meaningful work in this area so consequently on most main streets in London there has been a proliferation of these advertising boards (A boards). The situation has become like an 'arms race' in that once one business has an A board(s) other premises in the area feel they must have one too. These cause considerable problems to blind and partially sighted people as by their very nature they are randomly placed so can not be anticipated in the way that fixed furniture, phone boxes Etc can be. As with cycling these will have over time a detrimental impact upon a blind person's confidence as to continue to encounter these will cause frustration and embarrassment and will again result in the view that going out alone is simply too difficult.

Conclusion

We very much welcome any initiative(s) which make it easier for people to walk in safety and with greater ease. However, we would strongly urge the Mayor to take into account the wider picture of transport policy and to look at ways in which it can be made safer for all who wish to undertake a journey whether on foot, on a bike or by car. Our evidence shows that many blind and partially sighted people never go out alone as they consider the environment to be too dangerous and un-friendly. Therefore any policy to make the pavement more pedestrian friendly and less busy is to be welcomed too.

For further information please contact Richard Holmes Campaigns Officer for London - 020 7391 2112
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Better Bankside

Making Bankside a thriving place to live, work and visit

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Caroline Pidgeon AM
Deputy Chair Transport Committee
London Assembly

18 August 2010

Dear Caroline

London Assembly investigation into making it easier and safer to walk in London

Thank you for the opportunity to respond to the above London Assembly investigation. This response is from Better Bankside. Better Bankside is the third BID in the UK, the second in London and the first south of the river. A Business Improvement District (BID) is an independent, business-owned and led company, which seeks to improve a given location for commercial activity. Better Bankside's members are the 460 companies in the BID area who pay its annual 'levy'.

We are making our response to your investigation based on some key strands of our core programme that are relevant to the topic, namely:

- Travel Planning
- Bankside Urban Forest (a Mayor's Great Space)
- Health and Well Being
- Greening
- Safety
- Cleansing
- Improving the environmental performance of businesses
- Employer Engagement – local jobs for local people
- Tourism and area promotion

We feel that walking is the most democratic and sustainable of transport modes, and yet because it is difficult to quantify the quality of life improvements that walking can bring, it is often at a disadvantage when competing with other modes for investment. Where other modes can justify investment based on hard data such as journey times, passenger numbers etc, it is harder to justify investing in improving the public realm to promote walking as a mode.

Which of the Mayor and TfL's current initiatives to promote walking are resulting in more people walking or which might deliver a sustained increase in walking in the future? Which should be prioritised in 2011 and why?

Better Bankside welcomes the Mayor's vision for civilising London's streets, and the launch of his London's Great Outdoors and Better Streets manifestos, which chime well with our own Bankside Urban Forest initiative. We would like to see investment in schemes that deliver high quality improvements to the public realm across London and particularly the Bankside Urban Forest area in coming years to improve local streets to promote walking to all sectors of the community.

Transport for London's Key Walking Route initiative has successfully delivered improvements to Redcross Way – a key part of Bankside Urban Forest. This investment has fundamentally changed for the better how this street operates for pedestrians, and has resulted in an improved local environment, connecting local schools, green spaces and shops and services and has no doubt increased the use of the street as a vital link in the neighbourhood.

Streets like Redcross Way and other north south routes in our area (Great Guildford and Great Suffolk Streets, Southwark Bridge Road) provide the main pedestrian links between Bankside and Elephant and Castle. We believe that investment in improving these streets can unlock economic potential and enable more effective flows of people and economic investment between these two regeneration areas. The Bankside Urban Forest provides a vision and coordination for such improvements and we would welcome the opportunity to work with Transport for London on delivering similar schemes throughout the Bankside Urban Forest area in future years.

The wider rollout of Legible London through the three pilot schemes that were implemented throughout 2008/09 have had a positive impact on walking within the capital – particularly for shorter journeys. We will work with the Mayor and TfL on the wider roll out of the scheme within Bankside – (the Legible London Pilot in South Bank and Bankside has only partial coverage in Bankside).

Better Bankside works closely with Transport for London on its work based travel planning programme, and actively promotes walking to and from work, and for work related trips. Our travel planning service continues to be a popular and well used service for local businesses, and we would welcome further support from and collaboration with TfL on promoting walking in future years.

What, if any, other initiatives should the Mayor and TfL adopt to make it easier and safer to walk in London and why?

We would like to see the road user hierarchy changed to put the pedestrian in priority over other modes. We see this as the single most constructive thing the Mayor could do to promote easier and safer walking in London. We also believe that London's hosting of the Paralympics in 2012 provides the Mayor and TfL a unique opportunity to help London become a world class accessible city. We would welcome the opportunity to work with the Mayor and his agencies to achieve this in Bankside.

There are a range of measures and initiatives that the Mayor and TfL could consider adopting to make walking a more viable mode within London, from the further roll out of Legible London, to the continuing programme of decluttering streets – and particularly removing pig-pens and extending the width of crossings at key points. Better Bankside would like to see greater use of the Legible London base maps in portable format for people to use while exploring London on foot. We also think that Transport for London might consider walking being the default option on journey planner for journey times less than 30 minutes in Zone 1.

Through Bankside Urban Forest we have an ambitious programme to improve the public realm in the Bankside area through a coordinated range of large and small, temporary and permanent interventions and projects. We would welcome greater involvement from Transport for London in the Bankside Urban Forest programme at management group and project group level. Our current BUF partners include LB Southwark, Tate Modern, Design for London, Cross River Partnership, The Architecture Foundation, Land Securities, Native Land, and at a local level Bankside Residents' Forum, Southwark Living Streets and Bankside Open Spaces Trust (BOST).

We would welcome closer working with Transport for London and the Mayor in tackling key issues and barriers to walking along Red Routes – of particular importance to us are Borough High Street, Southwark Street and Blackfriars Road. Borough High Street has been identified by our businesses as a key priority for us

between 2010-15, and we are working with local stakeholders including Southwark Living Streets, Team London Bridge, LB Southwark and Bankside Residents' Forum to set out a vision and plan of action to improve this historic and key street in the area.

As part of our tourism and area promotion work, we are working to install pedestrian counters on key streets within the BID area to get a better understanding of visitor numbers and pedestrian patterns throughout the area. We would welcome closer working with TfL in terms of sharing this resource and the information we gain from it to make Bankside's walking environment more fit for purpose. We suggest that by building up a better picture of pedestrian patterns in our area, we will be better equipped to respond to their needs over time.

Through the South Bank and Bankside Cultural Quarter we are working with cultural partners to make the streets and spaces between the rich cultural attractions along the south bank of the River Thames as inspiring as the cultural venues they link. We would welcome greater collaboration with the Mayor and Transport for London on developing outdoor cultural programmes which promote walking as the primary mode to visit our attractions. We would welcome the opportunity to work collaboratively on such initiatives with the Mayor and TfL during the year of walking and indeed into the 2012 Olympic and Jubilee year.

What, if any, other measures should the Mayor and TfL take to ensure the 'year of walking' delivers a sustained increase in walking?
We love the recent Sky Rides, and would love to see similar initiatives aimed at pedestrians. We would love to work with Transport for London and other partners to facilitating temporary road closures for such events, and would like to the process made easier to secure road closures.

2011 gives us all the opportunity to try out ideas that could be replicated in 2012 for both the Olympics and the Jubliee. We also like the Cycle Super Highway and see lessons learned from that which could apply to promoting greater walking – subsidised walking shoes, walking mileage for work related journeys, walking chamions etc.

What work are you currently engaged in at a borough level outside of work with the Mayor or TfL?
In addition to the initiatives referred to above, we have a wide programme we deliver to local businesses that have links to improving the local environment for businesses, residents and visitors to the area.

- We have a dedicated cleaning team in the area, additional to council services, to help keep Bankside a cleaner, more attractive place to visit.
- In addition to our Bankside Urban Forest programme we have a greening programme – including hanging baskets and planters outside businesses. These add colour to local streets, while the baskets line key routes in the neighbourhood and help with pedestrian wayfinding. We would welcome greater cooperation with TfL on the installation of hanging baskets along red routes within our area.
- We have a dedicated team of community wardens who patrol the local area, meet and greet visitors to the area and generally provide an extra pair of eyes and ears on street. Our research tells us that people find this presence reassuring and helps reduce peoples' fear of crime in the neighbourhood.
- We deploy a suite of bespoke tables and chairs at key open spaces throughout the area to help activate some forgotten spaces and promote greater use of the public realm as social spaces. This positive activity at street level promotes a livelier, safer public realm – more conducive to exploring on foot.
- We have a mobile tourist information service that we share with Team London Bridge and South Bank Employers Group – the infobike which distributes maps and information about the area for visitors.
- We distribute thousands of maps and visitor guides about Bankside annually.

- We regularly host walks for our member businesses and for other people interested in specific strands of our work such as Bankside Urban Forest.
- We are involved in a Health and Well Being project, funded by the Department of Work and Pensions. Promoting walking and cycling is a key component of this programme.

- We are working with the LB Southwark on a project to help get local people in to jobs in the Bankside area. Improving key routes between residential areas to the south of Bankside with the business areas in the north will help us deliver the outcomes this project.

We would be happy to discuss any of the above points further with you as part of this investigation. We would also be happy to host visits to our area for you and your colleagues to see at first hand some of the issues and opportunities highlighted above. Please don't hesitate to get in touch if you would like further information on any of the above.

Yours sincerely

Peter Williams
CEO, Better Bankside

GOVERNMENT OFFICE
FOR THE SOUTH WEST

Value *for* Money:
An Economic Assessment of Investment in Walking and Cycling

Dr Adrian Davis

March 2010

V2

Foreword

Most transport investment is assessed for its value for money using methods which compare costs against benefits over the lifetime of a project. Traditionally most of the benefits have been associated with reductions in travel time.

In 2003 the Treasury introduced a new approach to appraise and evaluate projects across Government (NATA[1]). This established that benefits should be assessed in much wider terms – economic, environmental, social and distributional.

One of the consequences of these changes is that potential health benefits arising from transport investment are now an integral part of the assessment and decision making process.

Walking and cycling are the principal means by which we can build physical activity into our lifestyles and so stay healthy, become more healthy and/or reduce our risk of developing 20 conditions and diseases; including coronary heart disease, stroke, type 2 diabetes, cancer, obesity and mental health problems.

This report compiles the best available cost benefit evidence from the UK and abroad from recent studies that have calculated health benefits alongside other benefits such as savings in travel time, congestion and accidents.

The results are astonishing. The typical cost ratios are many times greater than the threshold of 2:1 which is considered by the Department for Transport as 'high' value for money. This supports the conclusion drawn by Eddington[2] that small-scale transport schemes can really deliver high value for money.

In an era of increasing scrutiny over public spending there will be added pressure to achieve exceptional value for money. Within transport, investment in walking and cycling are likely to provide low cost, high-value options for many local communities.

We urge those currently involved in preparing transport plans and investment programmes, particularly Local Transport Plan 3 managers, to use this evidence in deciding their policies and priorities.

Gabriel Scally
Regional Director of Public Health

Hilary Neal
Deputy Regional Director,
(Environment, Transport and Climate Change)

[1] New Approaches to Appraisal, as described in Transport Appraisal and the New Green Book, Department of Transport
[2] The Eddington Transport Study, The case for action: Sir Rod Eddington's advice to Government, December 2006

Summary

The trend across the UK and other developed nations is for physical activity levels to decline. This is associated with widespread use of the private car, an increase in sedentary leisure activities and greater mechanisation in the home, workplace and public places. Illness as an outcome of physical inactivity has been conservatively calculated to be £1.08 billion per annum in direct costs to the NHS alone (2007 prices). Indirect costs have been estimated as £8.2 billion per annum (2002 prices).

Walking and cycling have been identified as a key means by which people can build physical activity into their lifestyles. The volume of literature on Cost Benefit Analysis of interventions to promote routine walking and cycling has grown in the past decade or so and reveals that the economic justification for investments to facilitate cycling and walking had previously been under-rated.

But things are changing because the Treasury, and more recently the Cabinet Office, have recognised the costs of physical inactivity and the need to reflect these by steering transport policy, particularly in urban areas, to promote cost effective interventions including the promotion of walking and cycling.

This review assesses the evidence base from both peer reviewed and grey literature both in the UK and beyond. **Almost all of the studies identified report economic benefits of walking and cycling interventions which are highly significant. The mean result for all data identified is 13:1 and for UK data alone the mean figure is higher, at 19:1.**

Investment in infrastructure which enables increased activity levels amongst local communities through cycling and walking is likely to provide low cost, high-value options providing benefits for our individual health, the NHS in terms of cost savings, and for transport as a whole.

"Evaluation of the Sustainable Travel Towns project has demonstrated a significant shift from car to more sustainable modes – including walking and cycling – and the potential for active travel policies to deliver significant health benefits and **very high value for money."**

"With local authorities developing the next round of LTPs, the NHS cannot afford to miss the opportunity to ensure that local transport policies maximise the health benefits that walking and cycling can bring."

Active Travel Strategy, Department of Health/Department for Transport, February 2010

Value *for* Money:
An Economic Assessment of Investment in Walking and Cycling

Introduction

Physical activity is recognised as an important element of a healthy lifestyle, reducing the risks of ill-health and premature death. For this reason physical activity has been identified as a 'best buy' for public health.[1] The trend across the UK and other developed nations is for physical activity levels to decline. This is associated with widespread use of the private car, an increase in sedentary leisure activities and greater mechanisation in the home, workplace and public places. There is also increasing evidence of the link between adult obesity levels and travel behaviour, one indicator of which is that countries with highest levels of active travel generally have the lowest obesity rates.[2]

In England the Chief Medical Officer has stated that the target of 30 minutes of moderate intensity activity for adults (1 hour for children), such as brisk walking on at least 5 days per week in order to promote health, will only be achieved by helping people to build activity into their daily lives. His 2004 report on physical activity says,

> "For most people, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life. Examples include walking or cycling instead of driving…"[3]

Yet, 69% of women and 57% of men in the south west do not take enough physical activity to benefit their health report taking insufficient physical activity to reduce their risk of disease and ill-health.[4] A significant and growing body of evidence links insufficient physical activity to a number of medical problems and premature death (all cause-mortality). The evidence is strongest for chronic diseases, especially:

- cardiovascular disease
- stroke
- obesity
- cancer (colon, and breast)
- type 2 diabetes
- osteoporosis
- depression.[5]

While this desktop review does not claim to be comprehensive it does claim to reflect the *'direction of travel'* within both peer reviewed and grey literature of the benefits to costs (BCR) which accrue from investments in walking and or cycling – through both infrastructure and general promotion work. Studies have been sought both through on-line searches of transport and health databases and contact with authors across the globe.

Most studies of physical activity have focused on the economic burden of inactivity in general, often addressing a single disease or a few major diseases. These studies tend to concentrate on

direct health care costs - those directly associated with health care by the NHS.[6 7] Indirect costs include expenditure not directly attributable to the NHS, such as informal care, inferior physical and mental function, deficient physical and mental well-being, and loss of productivity through sick leave, but receive less attention in physical activity studies.

Illness as an outcome of physical inactivity has been conservatively calculated to be £1.08 Billion per annum in direct costs to the NHS alone (2007 prices).[8] Indirect costs have been estimated as £8.2 Billion per annum (2002 prices).[9]

CBA of active travel interventions

CBA of active travel (walking and cycling) projects is not currently widespread. Nevertheless, a consensus exists among experts in many OECD countries that significant public health benefits can be realised through greater use of active transport modes.[10] In 2009 there is a not inconsiderable volume of data on the CBA of environmental facilities on promoting physical activity in the general population including through walking and cycling.[11 12] This includes a recent systematic review (16 studies) of economic analyses of transport infrastructure and policies including health effects related to cycling and walking.[13]

A signal as to the growing importance of CBA is that recently the Cabinet Office has considered physical inactivity costs (among others) and the need to reflect these by steering transport policy in urban areas to promote cost effective interventions including cycling promotion.[14]

> "These results suggest that transport policy has the opportunity to contribute to a wider range of objectives. This is supported by emerging evidence on specific schemes e.g. high benefit cost ratios for cycling interventions." p. 3

Since the start of the 21st century there have been an increasing number of studies addressing cost-benefit analysis (CBA) of walking and cycling. Most of these are focused on infrastructure intervention. Most include calculations for reductions in ill-health and premature death, but not all studies do. These indicate that including health impacts arising from existing and new users could make a major difference to CBA results.[15] Non-UK evidence is in the Appendix.

The UK evidence for BCR of active travel interventions

CBA research for the Department for Transport

CBA research for the Department for Transport suggests the scale of cost-benefit ratio to be substantial i.e. that the benefits to costs (BCRs) were high. For example, a canal towpath in London was transformed into a high quality route and assessed in terms of levels of walking and cycling commuter use. User counts were conducted pre-project in 2002 and post-project in 2004. Improved route-surface quality and connectivity, in addition to the introduction of the congestion charge, led to considerable increases in usage, resulting in:

- A BCR of 24.5:1
- Savings of £5,487,130 through reduced absenteeism
- Savings of £28,537,854 due to increased physical fitness (based on numbers of preventable deaths)[16]

Links to School: Sustrans

During 2005, Sustrans, the Institute for Transport Studies at Leeds University, and the University of Bolton, produced guidance notes for the economic appraisal of cycling and walking schemes on behalf of the Department for Transport (DfT). The guidance is consistent with the government's New Approach to Transport Appraisal suite of tools, and is intended to form part of the DfT's WebTAG series which advises on methods of economically appraising transport schemes.

DfT's economic appraisal method with the new guidance was applied to three Links to Schools schemes in 2005 (a programme funded by DfT and administered by Sustrans to bidding local authorities).[17]

1) Bootle: This scheme consists of a series of improvements to an existing route close to a number of schools. The improvements include resurfacing, some new construction, road marking, signing and lighting. The grant awarded was £131,000 towards an overall project cost of £231,000. **BCR 29.3:1.**

2) Hartlepool: This scheme involved the construction of a toucan crossing close to a primary and a secondary school, with some more general infrastructure improvements in the immediate vicinity. The grant awarded was £25,174 towards an overall project cost of £50,349. **BCR 32.5:1.**

3) Newhaven: A new shared-use path in an existing grassed verge adjacent to, and set back from, the busy A259 was constructed. The route is some distance from, but forms a link between, two secondary schools. It also links to their communities of Seaford and Newhaven. The grant awarded was £125,000 towards an overall project cost of £300,000. **BCR 14.9:1.**

Research for Cycling England

Research by SQW Consulting for Cycling for England sets out a summary of the monetary values that have been estimated for one new cyclist, cycling regularly for a year.[18] A model was developed with four different scenarios: urban on-road, urban off-road, rural on-road and rural off-road. The values for these scenarios are shown in Table 1. The scenarios suggest that the annual economic benefits range from around £540 to £640 with the greatest economic benefits for cycling generated by urban off-road projects and the least by rural on-road ones. The average benefit per additional cyclist is £590 per year.

While the differences between the scenarios are reasonably significant, it is important to note that the greatest impact that cycling has is on the health benefits of *additional cyclists*. These

health benefits are universal. If people can be convinced to cycle, around two-thirds of the economic benefit generated does not depend on the location or type of facility.

The figures in Table 2 provide a simple and straightforward way to assess whether a cycling project is likely to generate a positive return on investment. As a rule of thumb, every £10,000 invested would need to generate at least one extra cyclist, each year, over a 30 year period in order to break even. Where the effect of the intervention is likely to be shorter, the number of extra cyclists will need to be higher.

Table 1 Annual values attributed to each additional cyclist, cycling regularly for one year – the figures assume that 50% of cycle trips replace a car trip

Benefits (annual for each additional cyclist)	Urban		Rural	
Health Benefits	On Road	Off Road	On Road	Off Road
Value of loss of life	£408.67	£408.67	£408.67	£408.67
NHS Savings	£28.30	£28.30	£28.30	£28.30
Productivity gains	£47.69	£47.69	£47.69	£47.69
Pollution	£34.57	£34.57	£6.49	£6.49
Congestion	£68.64	£68.64	£34.32	£34.32
Ambience	£13.20	£53.60	£13.20	£53.60
Total Benefits	£601.06	£641.46	£538.66	£579.06

Source: SQW

The report included a number of case studies of the economic impact and each case study is outlined in Table 2. The value of the benefits for every one pound invested varies considerably, ranging from 34 pence to over £40. However, this range is understandable given that some of the projects have only very recently been completed. This is particularly true of Priory Vale, Queen Elizabeth Park and Surrey University's Manor Park campus. The average benefit to cost ratio of the five case studies is just under 2:1 excluding the Hull case study which is much higher than the other results. Including this outlier, the average benefit to cost ratio is almost 10:1. It is also worth stressing that these cases were identified independently by the consultants as typical examples.

Table 2 Number of cyclists needed to achieve a benefit to cost ratio of 1:1

Cost of Project	Urban		Rural		Average
	On Road	Off Road	On Road	Off Road	
£10,000	1	1	1	1	1
£25,000	3	3	3	3	3
£100,000	11	10	12	11	11
£250,000	27	25	30	28	27
£500,000	54	50	60	56	55
£750,000	80	75	90	83	82
£1,000,000	107	100	120	111	109
£1,250,000	134	125	149	139	136
£1,500,000	161	151	179	167	164
£1,750,000	187	176	209	195	191
£2,000,000	214	201	239	222	218

Source: SQW

The retrofitting of seven streets in Hull has proved to be extremely successful, combining low costs with a high number of additional cyclists. The implementation of a 20mph speed limit and other measures also contributed to the growth in cycling.

York City Council assessed the value of one of its cycle route scheme using the above data. The Malton Road cycle route scheme cost £600K for infrastructure works and would achieve a benefit to cost ratio of 1:1 if the scheme created an additional 60 cyclists (approximately) for this urban, off-road route. By 2007 there was an average of 439 cyclists, an increase of 178 cyclists, constituting a 68% increase over 10 years.[19]

Most recently (November 2009), using the WHO's HEAT tool, Cycling England researchers estimated the value of the reduction in adult mortality.[20] The HEAT analysis found a maximum annual benefit (once the maximum health benefit had been reached after an estimated five years) of £8.9 million per annum. Taking into account the build up of health benefits in the HEAT tool, the present value of the mean annual benefit of this additional level of cycling is in the region of £4.5 million per year. Over ten years, assuming the new cyclists remained cycling at the current level, this would result in a saving of £45 million.

The Cycle Demonstration Towns programme cost £2.8 million per year of direct Cycling England/Department for Transport grant, matched by funding from the local authorities which averaged £3.4 million per year, for three years. This is a total of £18.7 million, which equates to a net present value of £17.45 million at the start of the project. Thus, for each £1 invested, the value of decreased mortality is £2.59. This figure is for decreased mortality only.

A benefit cost ratio using DfT approved webTAG analysis[21] built on this analysis found a benefit of between 2.6 and 3.5. The additional benefits included amenity, reduced congestion and

reduced absenteeism. The range resulted from the uncertainty over accident disbenefits (ranging from zero to £15 million). It was found there were significant gaps in the evidence to support the analysis. The analysis was conservative in that it assumed that the benefits would only last 10 years. It also did not include any benefits from reduced morbidity (ill health) and was calculated only for adults and included no benefits from additional children cycling.

Calculating life years saved

Research in England has also reported cost-benefits in relation to cycling.[22] For 100,000 people, evenly spread between the ages of 20 and 60, taking up regular cycle commuting, would result in 50 fewer deaths per year as an aggregate of health benefits and reduced road traffic casualties among those cyclists. This is equivalent to around 1660 life years. Assuming a value of around £30,000 per life year, this results in a net benefit of just over £50 million from those 100,000 cyclists.

Value for money

Although all schemes with a benefit-cost ratio greater than 1 might be worth pursuing, financial constraints, not least during periods of public finance contraction, mean that it is necessary to prioritise some schemes above others, at least in terms of value for money. The Department for Transport's WebTAG Guidance categories value for money (V*f*M) as per Table 3 below so that schemes over 2 are those most worth pursuing.

Table 3 Value for money

BCR	V*f*M
Less than 1	Poor
Between 1 and 1.5	Low
Between 1.5 and 2	Medium
Over 2	High

(Source WebTAG 2.6.4)[23]

Below is a compendium of the BCRs from the above studies. **For these UK projects the average BCR is 19:1.**

Table 4 Compendium of BCRs for UK walking and cycling infrastructure projects

Study	Study focus/location	Benefit to cost?	Comment
DfT, 2005	London	24.5:1	Canal towpath assessed in terms of levels of walking and cycling commuter use
SQW Consulting, 2008	UK	Almost 10:1.	Estimated impacts of five cycling infrastructure projects
Cycling England	England	2.59	Increases in cycling associated with Cycling Demonstration Towns -

			mortality benefits only.
Sustrans	Bootle	29.3:1	Resurfacing, some new construction, road marking, signing and lighting
Sustrans	Hartlepool	32.5:1	Construction of toucan crossing close to primary and secondary school, with some general infrastructure improvements in immediate vicinity.
Sustrans	Newhaven	14.9:1	New shared-use path in an existing grassed verge adjacent to, and set back from, the busy A259 was constructed
	Mean	19:1	

Conclusions

Health benefits are a fully recognised component within CBA calculations within transport planning. As with other areas of public policy decision making about interventions to increase physical activity, decisions are likely to be swayed by the economic case as much as by the general congestion reduction, health or environmental benefits. This is particularly accentuated in times of fiscal restraint. Consequently, an evidenced based approach to decision making, as required by Government, is especially important in informing the economic case.

The volume of literature on CBA/BCR of interventions to promote routine walking and cycling has grown in recent years and reveals that the economic justification for investments to facilitate cycling and walking has been undervalued or not even considered in public policy decision-making. Yet, almost all of the studies report economic benefits which are highly significant, with benefit to cost ratios averaging 13:1 (UK and non-UK).

Consequently, environmental and other interventions to facilitate increased population physical activity through cycling and walking are likely to be amongst the 'best buys' across many areas of public policy i.e. public health benefits, cost savings for health services and for transport planning. Looking for opportunities for the application of CBA/BCR the Local Transport Plan 3 is a clear target. Additionally, the significant values reported of BCRs should have a significant influence to inform regional and national transport policies.

Appendix 1: Non-UK BCR evidence

CBA (and BCR) calculations of traffic safety measures

CBA calculations of various traffic safety measures using European data show that measures for cyclists and pedestrians result in a more than positive ratio than other travel modes.[24]

- Measures to restrict speed such as those now in use in increasingly more urban areas reduce the average risk of accidents by more than 50%. The ratio between benefits and costs is 9:1
- Separate cycle paths have a positive effect on safety for both motorised vehicles and cyclists and also benefit traffic flow. The ratio is 9:1
- A measure that gives cyclists right of way at traffic junctions by means of an advanced stopping line over the full width of the road also improves safety for cyclists and other traffic and has an even more positive ratio of 12:1.[25]

BCRs for three Norwegian cities

A CBA of walking and cycling tracks in three Norwegian cities reported a series of benefits.[26] These benefits included improved fitness, reductions in health costs, decreased air and noise pollution and reduced parking costs. A range of other factors were included in the calculations including traffic accidents, travel time, insecurity, school bus transport, and medical and welfare costs (the latter being 60% of the total cost). The CBA/BCR included conservative estimates of some benefit components:

- *Traffic accidents* - assumed that the number of traffic accidents resulting in injury would remain unchanged because of the new walking and cycling tracks.
- *Travel time* – assumed that travel times for pedestrians and cyclists remain unchanged.
- *Insecurity* - felt by pedestrians and cyclists moving along a road was included at a cost of 2 Norwegian Kroner (NOK) per kilometre. Assuming an average speed of 10–20 km/h the cost of insecurity was about NOK 20–40 per hour for cyclists.
- *School bus transport* - assumed that 50% of children previously using a bus would not need this if walking and cycle track networks were constructed.
- *Less severe diseases and ailments and less short-term absence* – assumed that short-term absence from work would be reduced by 1 percentage point (from 5% to 4%) and that 50% of new pedestrians and cyclists would see improvements in their health.
- *Severe diseases and ailments and long-term absence/disability* - moderate amounts of daily physical activity reduce risk of premature mortality in general.

Risk reductions were related to just four types of severe diseases or ailments - cancer, high blood pressure, type-2 diabetes and musculoskeletal ailments. Estimated costs due to welfare loss for people suffering from these diseases or ailments were included. The welfare loss is estimated to be 60% of the total costs - the same magnitude as for welfare loss for people injured in traffic accidents used in Norwegian CBAs of other road investments.

External costs of road transport included were:

- CO2-emissions, local emissions to air,
- Noise
- Congestion
- Infrastructure costs
- *Parking costs* – commute trips by car replaced by walking or cycling were assumed to reduce parking costs for businesses in Trondheim, Hamar and Hokksund by NOK 1165, NOK 560 and NOK 3254 per month, respectively.

A summary of the CBA results are presented in Table 5, demonstrating that investment in walking and cycle networks in the three Norwegian cities (best estimates of future pedestrian and bicycle traffic) appear to be highly cost effective.

Table 5 BCR of investments in walking and cycling track networks in Hokksund, Hamar and Trondheim

	Hokksund	Hamer	Trondheim	TOTAL
TOTAL BENEFIT	153.7m NOK (£133.7m)	309.1m NOK (£268.9m)	3023.3m NOK (£2630.2m)	3486.1m NOK (£3032.9m)
TOTAL COSTS	30.2m NOK (£26.27)	20.1m NOK (£17.5m)	767.4m NOK (£667.6m)	817.7m NOK (£711.4m)
Net benefit/cost ratio	4.09	14.34	2.94	

Unit: Norwegian Kroner (NOK 1 = GB £0.87)

Walking and cycling trails in Nebraska, USA

A US study team analysed walking and cycling trails in Nebraska and reported societal benefits. [27] COBA data were

- The per capita annual cost of using the trails was US$209.28 (£120) (including construction, maintenance, equipment and travel).
- Per capita direct medical benefit of using the trails was $564.41 (£320).
- The cost-benefit ratio was 2.94, meaning that every $1 invested in trails for physical activity led to $2.94 in direct medical benefit (£1.67 for every £1 invested).
- As a result, an active person is calculated to have spent $564 (in 1998 dollars) less on medical care than an inactive person.

The results indicate that building walking and cycling trails is cost beneficial from a public health perspective, assuming the trail can be used for 10 years or more. Equipment and travelling to and from the trails formed the major part of the cost demonstrating the importance of increasing awareness of the health benefits of physical activity.

Danish bicycle promotion

A study of a Danish bicycle promotion scheme, using conservative estimates of health benefits, calculated net benefits of 3.1 billion Euros (£2.108 billion).[28] It was assumed that improving infrastructure and continued marketing activities would bring a 50% increase in cycling, associated with a 30% increase in walking across Denmark over 12 years.

Copenhagen, aiming to be World No. 1 Cycling City

Copenhagen has publicly set out to become the top cycling city in the world. The Danish Ministry of Transport's manual for calculating cost-benefit did not include a method for assessing cycle projects. The City of Copenhagen therefore devised a cycling assessment procedure based on the principles set forth in the manual. From a cost-benefit point of view the investments were particularly sound, giving an equivalent or better rate of return than road construction projects such as the widening of the motorway around Roskilde or a new motorway near Silkeborg.[29]

Cycling figures in hard cash - Denmark

* When a person chooses to cycle this is a clear gain for society of 1.22 Danish Kroner per kilometer cycled.
* Conversely, society suffers a net loss of 0.69 Danish Kroner per kilometre driven by car.
* In cost-benefit terms the health and life expectancy benefits of cycling are seven times greater than the accident costs.
* The cost of a bicycle is 33 øre (0.33 of a Danish Kroner) per cycled kilometre covering purchase price and maintenance. The equivalent cost for a car is 2.20 Danish Kroner per driven kilometre.[30]

Unit: Danish Kroner (DK 1 = GB £0.12)

World Health Organisation - Health Economic Assessment Tool

In 2007 the World Health Organisation published guidance on the economic appraisal of health effects related to walking and cycling and a tool to calculate the costs and benefits resulting from cycling interventions – Health Economic Assessment Tool.[31] This was premised on the fact that in recent years, a few countries have carried out pioneering work in trying to assess the overall costs and benefits of transport infrastructures taking health effects into account, and guidance for carrying out these assessments has been developed. However, important questions remained to be addressed regarding the type and extent of health benefits which can be attained through investments in policies and initiatives which promote more cycling and walking.

Addressing these questions was stated as important in order to:

a) support Member States in their assessments of the health and environmental impacts of alternative transport policy options;
b) promote the use of scientifically robust methodologies to carry out these assessments; and
c) provide a sound basis for advocating investments in sustainable transport options.

Research for New Zealand Government research

More recently the New Zealand Land Authority commissioned a study to value economically the health benefits of active travel modes.[32] A starting point for the study was the WHO HEAT tool. Elements of several methodologies were integrated and applied by the New Zealand researchers to estimate a value per km that could be easily incorporated into the existing economic evaluation methods. Mortality, morbidity and health-sector costs were all included in the total annual benefits that could be realised by an inactive person becoming physically active. These benefits were weighted and distributed across the average physical activity profile of the population to produce scenarios of an annual benefit per person.

For cycling this meant a per kilometre benefit of between $(NZ) 1.77 (£0.80) and $(NZ) 2.51 (£1.10). This is comparable to other calculations of benefit, including that generated using the HEAT tool.

Table 6 Compendium of BCRs for Non-UK walking and cycling infrastructure projects

Study	Study focus/location	Benefit to cost	Comment
PROMISING, 2000 EU Project	Restrict speed in urban areas.	9:1	reduce the average risk of accidents by more than 50%.
PROMISING, 2000 EU Project	Separate cycle paths	9:1	Positive effect on safety for both motorized vehicles and cyclists and also benefit traffic flow
PROMISING, 2000 EU Project	Advanced stop lines for cyclists	12:1	Advanced stopping line over the full width of the road also improves safety for cyclists and other traffic
Norwegian cities 2004 (peer reviewed)	Hokksund	4.09	Cycle network infrastructure
Norwegian cities 2004 (peer reviewed)	Hamer	14.34	Cycle network infrastructure
Norwegian cities 2004 (peer reviewed)	Trondheim	2.94	Cycle network infrastructure
Walking and cycling trails, 2005 (peer reviewed)		2.94	Off-highway cycle pedestrian routes in Nebraska
	Mean	8:1	

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Campaign for Better Transport

Caroline Pidgeon
Deputy Chair Transport Committee
Greater London Assembly
City Hall
The Queen's Walk
London SE1 2AA

4th August 2010

Dear Caroline

London Assembly investigation into making it easier and safer to walk in London

It has always been Campaign for Better Transport's view that walking and cycling have an important role as transport modes and in providing healthy and beneficial alternatives not just to the car but also to public transport. We welcome the London Assembly investigation into ways of making walking easier and safer and hope that the following comments will be helpful.

We do not intend to cover the subject in detail - others are likely to do so - but intend only to make some points that we consider of paramount importance or that are less likely to be covered by others.

In general we support the Transport Strategy proposals, summarised in the appendix to your letter, to encourage more walking but would say that rather than simply developing 'key walking routes', the whole urban environment must be made more sympathetic to pedestrians, ending the domination by motor traffic, and that this will improve the quality of the public realm and help to achieve the Mayor's objective of making London 'the best big city'. There is a conflict between safe and convenient walking conditions and current levels of motor traffic. Traffic reduction is essential but it is now proposed to replace policies to achieve traffic reduction with policies to smooth traffic flow. (It is proposed that policy 6.11.'Smoothing Traffic Flow' in the Draft Replacement London Plan should replace policy 3C.17 'Tackling congestion and reducing traffic' in the old plan). This is a retrograde move.

The first specific point we would make is that the Committee will obviously recall Braking Point, its report on 20 mph limits published in 2009 which concluded that there had been a 42% reduction in casualties in areas where 20mph limits had been introduced and that there was evidence that 20mph limits might contribute to encouraging walking and cycling (while also improving traffic flow and reducing emissions). The report recommended that further research be done on this possible effect. During its investigation into walking, the Committee could consider any additional evidence that has emerged and highlight the potential of reduced speed limits to encourage walking.

Secondly, trying to encourage walking or cycling will be more difficult or impossible if journey lengths continue to increase. Policies to reduce the need to travel and to shorten journey lengths are essential. The draft London Plan endorses the principle, and sets out some of the means, of reducing the need to travel but is not comprehensive. For instance it acknowledges the necessary role of local town centres easily reached from areas where people live and recognises the need for local shops accessible on foot and by bicycle. It also encourages the creation of higher residential densities in and around town centres and transport hubs to ensure facilities are near where people live and to provide the necessary demand to support them. But it does not, for example, recommend accessibility planning procedures which have been used for some time outside London to assess the availability of local shops, services and amenities and make good any deficiencies; it proposes to relax parking standards thus increasing the likelihood of travel by car and the distances people are likely to travel; and it endorses developments, such as Brent Cross/Cricklewood, which include a large number of car parking spaces and are designed to serve a wide catchment area. Campaign

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for Better Transport's recent report 'Missed Opportunity Areas' which considers the traffic and transport impacts of the Brent Cross/Cricklewood and Battersea Power Station developments, including their impact on conditions for walking, will be attached to this letter and is available at:
http://www.bettertransport.org.uk/system/files/missed-opportunity-areas.pdf

These matters reflect the principles of less car dependent (and therefore more 'walkable' development) set out in our recent report Masterplanning Checklist for Sustainable Transport in New Developments which was intended to show how the eco-towns should be designed but can readily be applied retrospectively to existing urban areas and to new developments within them. The Checklist includes recommendations about:

- density of development
- local facilities and jobs
- street layout and design
- public transport provision
- parking
- restraints to car movement through street design
- smart travel and behaviour programmes.

We would stress the potential to encourage walking in place of travel by car by the use of measures which affect the availability, cost or convenience of using parking space.

The Masterplanning Checklist report is attached to this letter and available at:
http://www.bettertransport.org.uk/system/files/Masterplanning_Checklist_2008.pdf

Many of these principles already apply in inner London where the density of development, transport provision and local amenities is already high and the percentage of journeys made on foot is 36%, compared to outer London where the percentage is 28%[1].

Our third and final point concerns the related issues of street design, filtered permeability and the removal of one-way systems. Street design is something that the Committee will be likely to consider. One means of making it faster and more convenient to walk is by addressing the permeability of the street network. The aim, particularly if focused around town centres and local shopping areas and their surrounding residential hinterland, should be to make it as quick and convenient to walk as to travel by car by making it possible to use certain roads or junctions on foot (or by bike) but not by car instead of providing the unimpeded car access which is now the norm. The removal of one-way systems should not be overlooked. They affect conditions for walking because of the serious damage they inflict on the quality of the public realm and the extent to which they exacerbate the severance impact of the road network. The Committee might look at progress in removing gyratories.

We would of course be pleased to enlarge on these matters if that would be helpful to the Committee.

Yours sincerely

Richard Bourn
London Campaigner

[1] Table 3.12 Travel in London, TfL 2009

Masterplanning Checklist

for Sustainable Transport in New Developments

Ian Taylor and Lynn Sloman
Transport for Quality of Life
September 2008

This report was commissioned by Campaign for Better Transport whose London work is supported by London Councils

transport for quality of life

Contents

Executive Summary

Between now and the year 2020 it is intended that as many houses will be built in England as were built in the whole of the Victorian era. This represents a once-in-a-lifetime opportunity to create truly sustainable communities, with low car use and high levels of walking, cycling and public transport travel, equivalent to the best examples in continental Europe. If this opportunity is grasped, we could significantly reduce our future carbon footprint.

Conversely, if we fail to design these new housing developments in a way which makes walking, cycling and public transport travel easy and attractive, and instead build new homes with 'designed in' car dependency, we will increase carbon emissions from transport, and at the same time risk building the slums of tomorrow. In a scenario of rising oil costs, places where jobs, education, shops and leisure facilities are inaccessible without a car are liable to become places people will not want to live.

The urgent need for large cuts in carbon emissions and the prospect of a continued rise in the price of fuel means that we should *only* be building homes in which people can enjoy living while making minimal use of a car. This is significantly different from the current approach, which is to build non-car-dependent housing in places where it is easy to do so, but to continue to build car-dependent dwellings elsewhere.

Part A of this report examines the evidence on the different factors which affect car use by residents of new developments, including: location, density, land-use mix, street layout and design, public transport provision, parking, car restraint, and the existence of smart travel behaviour change programmes. Based on this evidence, it sets out a Sustainable Transport Masterplanning Checklist (summarised in the table below) which can be used as a practical guide by local authority councillors, planners and developers to create new housing development which facilitates sustainable travel patterns. It is also of practical relevance to policy-making at regional, sub-regional and national levels.

Certain aspects of the Sustainable Transport Masterplanning Checklist may appear radical. It breaks away from the current consensus on what type of housing development is acceptable. The implication is that we must develop a totally different paradigm for twenty-first century housing, although it might also be viewed as a return to an earlier paradigm represented by the densely-built and highly sustainable urban form of housing in every century up until the last one.

The Sustainable Transport Masterplanning Checklist

Location of new developments

- Not close to motorways, or high-speed dual carriageway roads
- Within walking distance of major public transport links
- Adjacent to or within urban centres rather than smaller freestanding towns

Density of development

- New developments should be built to high density levels with a minimum net density of 100 dwellings per hectare
- Developments in locations close to excellent public transport should be built to net densities above 200 dwellings per hectare

Local facilities and jobs

- Residential developments should include or be closely associated with facilities that are used on an 'every day' basis – i.e. shop selling food and fresh groceries, newsagent, open space with children's play area, post office and cash point, creche/ nursery and primary school, eating and drinking places, supermarket, and secondary school
- Larger residential developments should also include or be close to facilities which can capture a large proportion of trips locally – i.e. medical centre, chemist, community centre
- Residential developments should include or be close to as wide a range of shops and facilities as possible
- The local centre with shops and facilities should be within walking distance of all residences - 800m
- Local centres should be pedestrian and cycle access only, so far as possible
- Employment planned in association with the development should be able to source the required staff from within a 30 minute travel time catchment on public transport, plus walking and cycling distance around the site
- Employment planned in association with the development should include many jobs that can easily be filled from a local pool of unskilled or semi-skilled labour
- Car access to planned employment sites and local shopping centres should be more expensive, less convenient, and less rapid in comparison to access by public transport, bike or walking

Street layout and design

- Filtered permeability should be fundamental to the plan
- Low speed limits (20mph maximum) throughout the estate area
- Home zone street design for all residential streets
- A network of safe cycling and pedestrian routes
- Pedestrianised local centres with cycle access
- People-centred attractive street design
- Cycle storage at local destinations

Public transport

- Public-transport centred development, based on high quality public transport providing rapid connections to the nearest major centre of employment and major urban facilities.
- Sites which currently have poor public transport should not be developed until public transport has been improved.
- Dedicated public transport routeways for large developments
- 800m maximum distance from residences to the main public transport hub
- Direct high quality pedestrian and cycle links to public transport
- Cycle storage at transport hubs
- Minimal car parking at transport hubs

Parking

- Set parking standards as maxima (definitely *not* minima) at less than 0.5 spaces per unit i.e. at least 50% of residential units should in effect be 'car-free'
- Segregate parking from homes in new residential developments
- A high proportion of housing should be car-free and have no dedicated parking space
- Residents should be charged the full cost of parking provision
- Limited parking at local facilities and shops, all with a parking fee

Restraint to car movement

- Design developments so that other modes are faster and more convenient than the car

Smart travel behaviour change programmes

- Residential travel plan, operative during first marketing of a development, then ongoing
- Ongoing finance to employ a travel plan coordinator
- Travel plans for local schools and local employers
- Car club, up and running before residents move in
- Restricted parking

Part B of this report assesses the likelihood that current national policy will lead to the development of housing that encourages sustainable travel. The policy review shows that, viewed from the standpoint of sustainable transport, official policy documents are contradictory: some promote activities that will tend to increase car use, whilst others promote activities that will tend to decrease car use.

To gain an understanding which of these conflicting presentations of policy is actually being given priority 'on the ground', an analysis is undertaken of the split of public funding allocated to transport projects within one of the Housing Growth Areas – the Thames Gateway. A striking difference is apparent between the split in London where 79% of expenditure is on public transport, and the split in Kent and Essex where, respectively, 76% and 68% of expenditure is on road projects. In London, the spending priorities appear broadly commensurate with expressed policy priorities to achieve lower car use. Outside London there appears to be an assumption that travel patterns will inevitably be dominated by the car in future, and that this should be catered for in terms of increased road capacity.

Recommendations for national policy

In addition to proposing the Sustainable Transport Masterplanning Checklist the report makes the following broader policy recommendations.

Targets for modal shift

There should be a high-level aim for new housing to be, on average, significantly *less* car dependent than current housing stock.

- A target should be adopted for new developments to achieve '20% less car use' than the average in the wider local area (e.g. borough). Analysis in the report shows this target to be realistic.
- A threshold target of less than 50% car driver mode share is also required, so that no developments that would fail this test receive approval.

Rule out unsuitable sites proposed for Eco-towns

Several sites are located too close to motorways or high speed roads and should not go ahead because they are unlikely to deliver the Government's aim of at least 50% of trips being made by sustainable modes.

Set a higher national indicative minimum housing density

- The evidence presented in this report demonstrates that new housing net densities should be at least 100 dwellings per hectare.

This density should be applied to all sites of significant size even in non-urban settings, in order to enable the provision of sustainable transport options and to encourage the development of a range of local facilities. Until the last century even small towns and

villages were built to high densities that supported local facilities and journeys on foot and by bike.

Re-balance funding between public transport and road schemes

- At least 50% of funding for transport measures should be allocated to public transport, walking and cycling.

This principle accords with the Government's suggested target for 50% of trips in Eco-towns to be by foot, bicycle or public transport, but it should be adopted for the Housing Growth Areas and New Growth Points as well as Eco-towns. In some areas, the historic over-emphasis of investment on road-building means that it would be appropriate to spend a much higher proportion of total investment on sustainable modes.

Recommendations for Thames Gateway policy

Prioritise the most sustainable locations for development

Housing development in London should be prioritised over development in Kent and Essex, since there is greater potential to link into a high quality public transport network. The London Housing Capacity Study identified capacity for 146,000 homes within East London, which is more than 90% of the target for housing development in the *whole* of the Thames Gateway.

Within London, housing development should be focussed initially in those areas with the best public transport and then in areas where substantial improvements to public transport are planned or possible. Sites which currently have poor public transport should not be developed until public transport has been improved.

Focus development where high densities are appropriate

Areas with poor public transport which are considered unsuitable for development at densities below 100 dwellings per hectare should remain undeveloped unless and until public transport can be improved. No significant sites should be developed at net densities of less than 100dph.

In areas with excellent public transport links, net densities of new housing developments should be at least 200dph in order to maximise the number of households able to enjoy excellent public transport connections. This figure is in line with densities recommended in the London Plan for central and urban locations with very strong public transport access.

Tighten parking provision in new developments

Even the strictest parking standards for residential developments in The London Plan are notably high and liable to lead to high levels of car use, despite the ambitions for sustainable transport expressed elsewhere in the plan. The evidence presented in this report shows that new developments in continental Europe observe much lower

standards, and, moreover, that the level of parking expressed in the London Plan would represent a significant deterioration even from the existing car ownership levels in wards of London boroughs well served by public transport – exactly the sorts of wards which new development should be concentrated in. Parking provision has a fundamental influence on travel habits and standards should be set at 0.5 parking spaces per household or less, with substantial proportions of new developments designed as car-free.

Re-balance funding between public transport and road schemes
There should be a review of public transport and road schemes in the Kent and Essex parts of the Thames Gateway to identify a series of ambitious new public transport schemes which would unlock the potential for sites to be developed to high densities. The overall aim should be a re-balancing of transport expenditure so that at least 50% (and in the short term, 75%) is for public transport, walking and cycling.

Where new public transport is planned to serve housing developments, it should have sufficient capacity to meet the desired public transport modal split.

In planning for new development in the Thames Gateway, a high priority and a high proportion of overall public transport funding should be given to the local transport links – cycle paths, walking links, bus rapid transit, conventional bus, DLR and other light rail.

Current plans for the Thames Gateway involve a number of proposals for major road schemes, at various stages of development, that are liable to increase overall road capacity and create the conditions for development of car-dependent sites. These include the Thames Gateway Bridge, the Silvertown link, plans for a Lower Thames Crossing, and possible plans for Junction 30 of the M25. These and other road schemes should be cancelled or reconsidered.

Introduction

This report examines the evidence from a wide range of empirical research on the design and location of new housing and how it influences people's travel patterns. It also attempts a high level assessment of how well current policy is succeeding in creating the conditions for less car-dependent housing development. It is intended to encourage politicians, planners and developers to provide housing developments which make it easy and attractive for new residents to travel by sustainable means of transport.

We believe the evidence assembled here deserves close attention, because the housing development planned over the next decade is on a massive scale and, as such, represents a major opportunity. The Government's 2007 housing green paper (*Homes for the Future: More Affordable, More Sustainable*) committed to a target of three million new homes in England by 2020. This is roughly comparable to the increase in housing stock in the whole of the Victorian period. The current rate of new housing construction is 185,000 homes per year, and the housing green paper aims for this to rise to 240,000 additional homes per year by 2016, which is approaching three times the *peak* rate of housing construction by the Victorians[1].

Another way to look at the intended scale of housing construction is by comparison with existing housing stock. If the Government's ambition to build three million new homes is realised, these as yet un-built homes will represent an increase in the housing stock of over a fifth (21%) in the six regions in which the development is to be focussed (London, South East, East, South West, East Midlands, West Midlands) in 2020.

It is commonly said that the biggest challenge in terms of sustainable travel is to encourage less car-dependent travel patterns within the existing fabric of our towns and cities. However, the planned large increase in new housing described above offers a once-in-a-lifetime opportunity to create truly sustainable communities, with low car use and high levels of walking, cycling and public transport travel, equivalent to the best examples in continental Europe. If this opportunity is grasped, we could significantly reduce our future carbon footprint.

Conversely, if we fail to design these new housing developments in a way which makes walking, cycling and public transport travel easy and attractive,

[1] National census data shows that the total housing stock in England *and* Wales during the Victorian era increased from 3.2 million in 1841 to 6.7 million in 1901 – that is, an additional 3.5 million houses over sixty years. The annual rate of housing construction for England and Wales in the years between national censuses during the Victorian period ranged from a low of 30,000 per year (decade to 1851) to a peak of 89,000 per year (decade to 1901).

and instead build new homes with 'designed in' car dependency, we will increase carbon emissions from transport, and at the same time risk building the slums of tomorrow. In a scenario of rising oil costs, places where jobs, education, shops and leisure facilities are inaccessible without a car are liable to become places people will not want to live. In this scenario, such homes will be difficult to sell and difficult to let.

Some of the recommendations in this report may make for uncomfortable reading, as they break away from the current consensus on what type of housing development is acceptable. We believe that the urgent need for large cuts in carbon emissions and the prospect of a continued rise in the price of fuel means that we should *only* be building homes in which people can enjoy living while making minimal use of a car. This is significantly different from the current approach, which is to build non-car-dependent housing in places where it is easy to do so, but to continue to build the old car-dependent dwellings elsewhere.

This approach of building homes in which people can enjoy living while making minimal use of a car is to some extent reflected in the Government's idea of Eco-towns (although in fact there are serious doubts about whether the reality will match the aspiration, given the proposed locations of some of these towns), but we believe that it should apply to *all* new housing development, including in the Housing Growth Areas, New Growth Points and elsewhere. There should be no further housing development in sites which are poorly located with respect to public transport; and no more road-building to unlock the (car-dependent) 'potential' of development sites. New building should be at densities and in a form which supports a wide range of local facilities and makes it easy to reach them on foot or by bike. There should be a large shift in funding away from road-building and towards schemes to improve public transport, walking and cycling.

In a sense, what we are suggesting is that we must develop a totally new paradigm for twenty-first century housing, akin to the densely-built and highly sustainable urban form of housing in every century up until the last one. Our new housing should be like the best of the housing built by the Georgians and Victorians, in providing generous space for people to live, while at the same time providing excellent transport connections and a range of services and amenities within walking distance. The model for this is many of the inner suburbs of London and other cities which remain successful urban communities more than a hundred years after they were built. We must make a firm break from the deeply unsustainable low density suburban development of the last eighty years which is so difficult to live in without relying on a car.

This report was commissioned by Campaign for Better Transport specifically to support their work in London, and as

such it has a particular emphasis on housing development there, and especially in the Thames Gateway. However, it also has wider relevance, to the other Housing Growth Areas in the South of England, to the proposed Eco-towns, and to housing in the New Growth Points across England.

Part A of the report examines the evidence on the different factors which affect car use by residents of new developments, including location, density, land-use mix, street layout and design, public transport provision, parking, car restraint, and the existence of smart travel behaviour change programmes. Based on this evidence, it sets out a Sustainable Transport Masterplanning Checklist which can be used as a practical guide by local authority councillors, planners and developers to create new housing development which facilitates sustainable travel patterns, and also as a guide to policy-making at regional, sub-regional and national levels.

Part B of the report begins with an overview of the Government's plans for new housing in the Growth Areas, Growth Points and Eco-towns, including the Thames Gateway as a specific example. It then examines national policy in relation to new housing and sustainable transport, and assesses the extent to which current policy seems likely to deliver the Government's aim of 'sustainable communities'. It looks at funding for transport schemes related to new housing. Finally, it makes recommendations for policy change at national level and for the Thames Gateway, based on the evidence presented in the Sustainable Transport Masterplanning Checklist.

Part A

The Sustainable Transport Masterplanning Checklist: Evidence Base

In this first part, we examine the empirical evidence for the effects of a range of factors on residents' travel patterns. The factors examined are:

- Location;
- Density of development;
- Local facilities and jobs;
- Street layout and design;
- Public transport quality and proximity;
- Car parking;
- Restraint to car movements;
- 'Smart' travel behaviour change programmes.

For each factor, we identify a small number of key questions and then review the evidence in relation to these, drawn from the academic and policy literature. Based on these research findings, we make recommendations as to the appropriate actions and policies to minimise car-dependent travel patterns. Taken together, these recommendations form a Sustainable Transport Masterplanning Checklist which is presented in summary form at the end of Part A.

The search of the academic literature covered 27 journals in the fields of transport, planning and applied geography. For the sixteen most relevant journals, all available online issues were manually checked for titles and abstracts of pertinent articles. The remainder were electronically searched using approximately twenty key-words and key-word combinations. Some 130 articles emerged which were categorised according to topic and relevance. Further academic articles were acquired from pre-electronic issues via personal and institutional collections and through direct requests to the authors. Additional material was also sourced via references in articles studied. The data sources named within the following section are listed in full in the References section at the end of the report.

1 Location

This section concerns the overall question of where a development is, particularly in relation to transport routes – for example, whether it is adjacent to a motorway or trunk road or whether its links to nearby urban centres are fastest by railways or other public transport.

1.1 The key questions

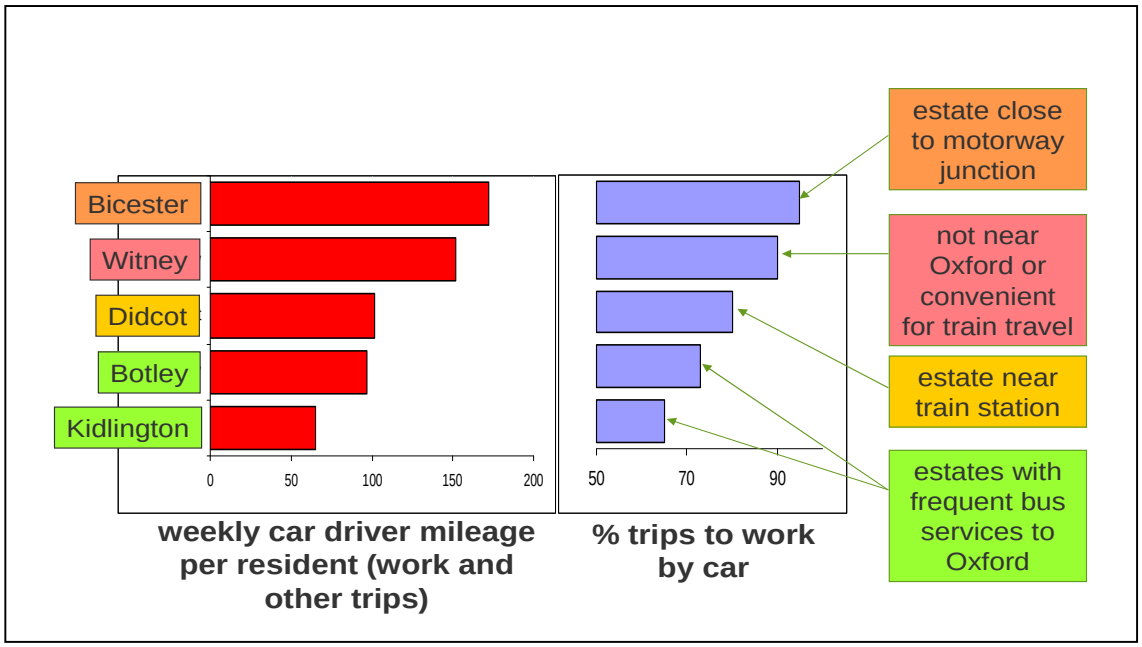
- Is travel behaviour of residents influenced by a development's location in relation to transport corridors and urban centres?

1.2 The evidence

- **Is travel behaviour of residents influenced by a development's location in relation to transport corridors and urban centres?**

Curtis (1996) selected five estates in Oxfordshire to study how the travel habits of residents varied with proximity to major transport routes and distance to a 'functional centre'. All the estates are of similar size and socio-economic profile and, although close to existing local town centres, lack shops on the estates themselves. The distance to Oxford, the nearest large urban centre for shopping, employment and leisure varies from 3 to 15 miles. Access, including access to the workplace, dominated the reasons that residents gave for choosing their present residential area, and differences in the overall weekly distance travelled resulted almost entirely from differences in commuting distance. Lowest levels of car use were in the two estates closest to Oxford, Botley and Kidlington, which both have frequent bus services to the city centre. However, of these two estates, Botley which is the nearer estate (3 miles away compared with Kidlington at 7 miles) recorded higher car mode share for commuting, 49% more overall car miles per adult per week (measured as driver miles for all types of trip), and under a quarter the proportion of the bus journeys to work (4% vs 17% of trips). The authors attribute this difference to Botley's proximity to the intersection of two major roads, the A34 and the A420. The development at Bicester, characterised by proximity to the M40 motorway and rather poor public transport, stood out as having the highest car mode share at 96% (measured as car driver and car passenger journeys for all types of trip), with weekly car driver mileage 59% above the average for the five settlements studied. Only in the case of Didcot, served by rapid and frequent trains, was rail a significant proportion of journeys to work (11% compared with zero to 2% elsewhere).

Figure 1: Effect of housing location on car use



Source: Curtis 1996

These developments were later compared with a new development on a former industrial site in Oxford itself (Brown 2004). This estate (Waterways) differs from the other developments in being contiguous with the built up areas of Oxford and being inside the Oxford ring road, although its distance from the city centre (slightly under two miles) is not much less than Botley, the closest estate included in the earlier study. In other respects it is similar to the other estates, including the number of houses, the lack of shops on the estate itself, and the presence of shops nearby in the local centre of Summertown. The study included analysis of changes to residents' car use when they moved to the estate. It found a small decrease in the proportion of trips by car (56% to 53%). However, the author highlighted the difference with the marked rise in car trips (68% to 82%) that had been recorded by the earlier research of the five sites outside the city. In conclusion he supports the findings of the earlier research that new developments should be located within, or close to, the periphery of main urban areas that act as 'employment magnets' (in preference to the smaller freestanding towns).

Although the scale of distances considered is smaller, it is relevant to note the correlation found in Dutch survey data (Meurs and Haaijer 2001) between the number and proportion of household car trips and whether a main road could be reached from home in less than one minute's driving. This study is discussed further in the section on street layout and design and the section on restraint to car movements.

1.3 The masterplanning criteria for location of new developments

- **Not close to motorways, or high-speed dual carriageway roads:** road links to both regional and local centres for employment, shopping and recreation should be markedly slower and less convenient than links by public transport.

- **Within walking distance of major public transport links:** particularly links to the nearest urban centre. Given the general unacceptability of commute times greater than 30 minutes (see discussion in section on Local facilities and jobs), the journey time to the nearest major employment centre should not considerably exceed half an hour.

- **Adjacent to or within urban centres rather than associated with smaller freestanding towns:** urban edge development, suburban 'densification', brownfield development; *not* development at towns or villages in the surrounding rural areas (nor in entirely rural locations).

2 Density of development

Density is the most fundamental of three measures of 'land-use', sometimes termed the 3 D's (after Cervero and Kockelman 1997). These are:

Density of development;
Diversity (land-use mix, including provision of local facilities and jobs);
Design (layout of roads, buildings, car parks, pavements and other street features that influence the ease and comfort of walking and cycling relative to driving).

2.1 The key questions

- How important is development density as a determinant of travel behaviour?
- Are there density thresholds for travel behaviour changes?

2.2 The evidence

- **How important is development density as a determinant of travel behavour?**

Much academic effort, described further below, strives to disaggregate the travel effect of variation in density *itself* from

the variations in land-use mix and street design that tend to go with it. But from a practical standpoint it is more relevant that without high density, public transport services, shops, schools and other facilities cannot viably be spaced within walking distance of people's homes, and the street environment tends towards a purely residential expanse where people rely on cars to reach even the nearest facilities. There is also evidence (e.g. Meurs and Haaijer 2001, Cervero 2004) that whilst different land-use variables may have quite limited effects on their own, when combined together the overall effect is considerable.

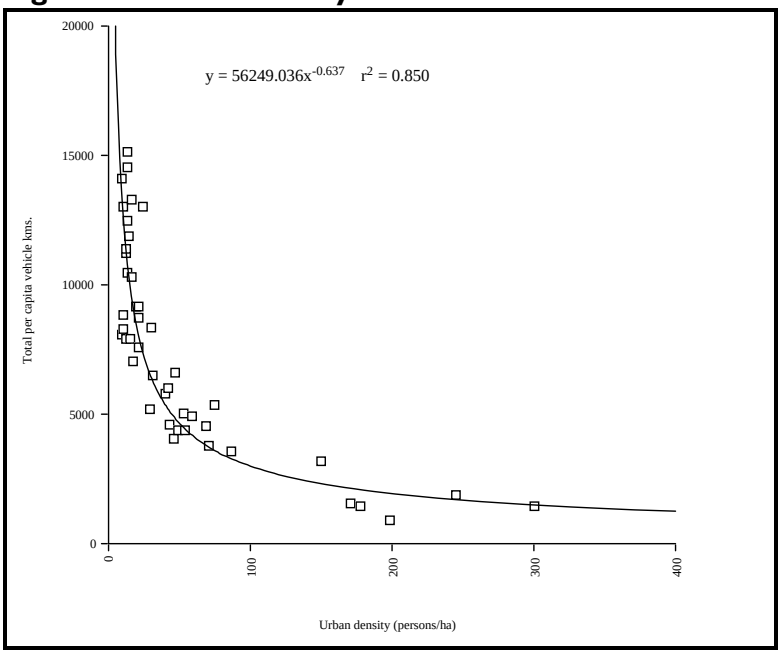
Development density is measured in several different ways. Approximate conversion factors between these different measures are provided in Table 1 below. The term gross density includes large open spaces and schools and major roads, and tends to be used at an area-wide or city-wide level. Net density is a measure of land actually allocated to development, and is restricted to the space occupied by a residential development and its associated uses, including gardens and local access roads.

Table 1: Density measurements and the relationship between them

Density measurements	Conversion factors	
people per net hectare/ bedspaces per net hectare	1	taken as equivalent
people per net hectare/ habitable rooms per net hectare	1	not fixed, but close to a ratio of 1 e.g. both equal 3 for a 2-bedroom house with 1 double + 1 single bedroom if 1 living room & kitchen is not a kitchen-diner
people per net hectare/ dwelling units per net hectare	not fixed: see below	depends on the type and mix of dwellings
	4	CABE (2005) table uses 4 but notes this is higher than UK average household size
	3	for the two bedroom house above
gross density/ net density	not fixed: see below	depends on scale under consideration
very small sites < 0.4 ha	1	source: ODPM (2005) land assessment guidance
small sites 0.4-2 ha	0.75-0.9	
larger sites > 2ha	0.5-0.75	
across larger area including schools and parks	0.45	given as a minimum level within an overall urban context (calculations across areas of open countryside could result in lower factors but would carry limited meaning)
acres in a hectare	2.471	

At an overall level, international comparison of cities with different densities shows a very strong inverse relation to annual car miles per capita (Kenworthy and Laube 1999), as shown in Figure 2.

Figure 2: Urban Density and Motor Vehicle Travel



Each square represents a major city.
Source: Kenworthy and Laube, 1999, as presented in Litman 2008

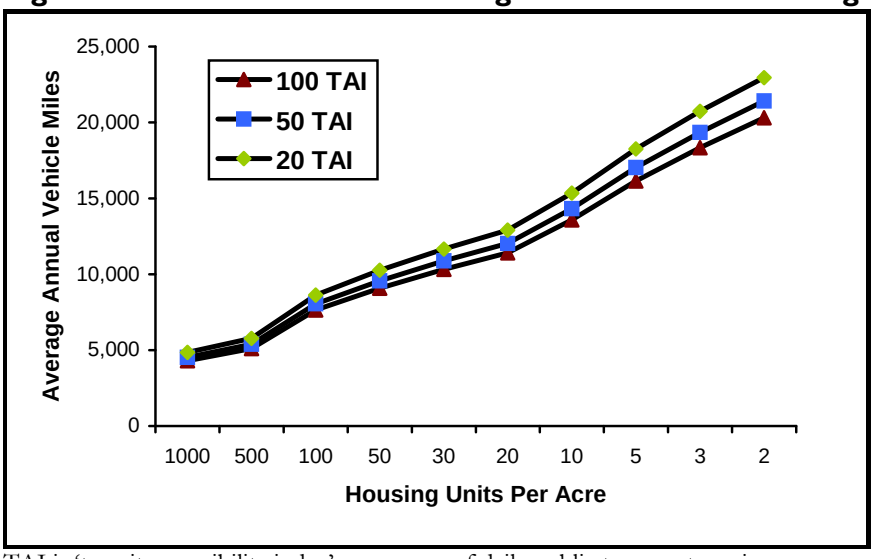
Taking just the twenty largest American cities, Manville and Shoup (2005) similarly found a strong correlation between increase in population density and reduction in per capita vehicle miles (a coefficient of correlation of minus 0.58).

On the scale of different neighbourhoods within a single city, Cervero and Radisch (1996) compared two areas in the San Francisco Bay Area that have different residential densities and land uses but similar public transport service and freeway access. They found that the neighbourhood with more compact development, more mixed land uses, and grid-like street layout showed higher levels of walking, cycling and public transport use than the neighbourhood with low densities and curvilinear streets. The difference was most marked for non-work trips. In the higher density neighbourhood (still comparatively low density by non-American standards) residents made about 15% of their non-work trips by sustainable modes. In the lower density neighbourhood, residents made just 4% of their non-work trips by sustainable modes, and 96% by car. The densities of the two neighbourhoods were 8.5 units per hectare and 2.5 units per hectare (conversions from densities quoted per square mile, so therefore most likely to represent gross density, although this is not specified in the study).

Travel surveys of different types of neighbourhood in San Francisco resulted in the finding that doubling suburban housing densities to roughly the density of urban neighbourhoods would

result in a 20-30% drop in per capita vehicle mileage, presuming public transport services improved to match those seen at similar housing densities elsewhere (Holtzclaw 1990 and 1994, as reported in Kuzmyak et al. 2003a; see Figure 3 below).

Figure 3: Household vehicle mileage variation with housing density



TAI is 'transit accessibility index', a measure of daily public transport services
Source: Holzclaw (1994), as presented in Litman (2008)

- **Are there density thresholds for travel behaviour changes?**

One question is how densely a residential development should be built around a public transport hub in order to ensure that most commuter trips are made by public transport. A study of areas within 1 mile radius of each of the 129 rail stations in the San Francisco Bay area (Cervero 2004) found strong relationships between rail transit use and density (and with other associated physical characteristics of the areas). The likelihood that a resident commuted by rail (transit commute modal share) rose from 24% at densities of 10 units per gross acre to 43% at 20 units/gross acre to 67% at 40 units/gross acre. The strength of this correlation reflects the fact that higher density areas also tend to have other features that encourage use of public transport, such as greater mix of land use and smaller block sizes that make walking routes more direct. Statistically stripping out all other factors that tend to vary (be co-linear) with density, the study found that an increase from 10 to 20 dwelling units per gross acre, on its own, would account for a 4% increase in public transport's mode share (measured as an absolute rise, i.e. 100% = all types of commuter trip). However, this effect rose to 8% increase if the density rise were combined with a reduction in the average residential block size from 6 acres to 4 acres. For practical purposes, density has to be considered as a planning variable that tends to bring other sorts of variation with it – i.e. it acts to some degree

as a proxy for other built environment variables in addition to density itself. Viewed in this way, the key message from this study appears to be that, to achieve a situation where a substantial majority of inhabitants, say two thirds, commute by rail, it is necessary to aim for 1-mile radius catchments around stations to be built to densities of at least 40 units per gross acre (nearly 100 units per gross hectare). This conclusion, however, presumes American urban design conditions, which have many features that encourage car use instead of public transport.

Analysis of the UK national travel survey (DoE/DoT 1993) showed a strong overall relationship between public transport use and population density but did not break down the highest density category that other studies show to be of most relevance. Weekly rail trips per person were approximately the same for density categories between one and 29 people per gross hectare (not stated as gross density, but this can be assumed considering the nature of the data source). In the next category of 30-49 people per gross hectare rail use was more than 50% higher. The highest density category considered was defined only as 50 people per gross hectare or more, and for this category weekly rail trips were 70% above the 30-49 people per gross hectare category. Bus use showed a steadier rise but the category above 50 people per gross hectare showed usage 25% above the 30-49 people per gross hectare group. Fifty people per gross hectare approximately translates to only 12 dwellings per gross hectare for dwellings with four bedspaces (5 dwellings per gross acre) so there is no data to compare with the higher density levels studied by Cervero in San Francisco.

A linked question is what threshold density is required to make provision of public transport services feasible. The Commission for Architecture and the Built Environment (CABE 2005) listed thresholds of 25 residential units per (net) hectare to sustain a bus service and 60 units/ha to sustain a tram service (apparently after Rudlin and Falk 1999). To a first order of magnitude, the threshold of the highest gross density DoE/DoT category appears comparable to CABE's threshold for a sustainable bus service (assuming the gross/net density ratio of 0.45 given in land assessment guidance from Office of the Deputy Prime Minister 2005). The development of Vauban, described in more detail in later sections, which was sufficient to justify extension of a tram service, is built to net densities of 90-100 dwellings per hectare.

Threshold housing density levels above which various types and level of public transport services are practicable are also listed in the American *Traveler Response to Transportation System Changes Handbook* (Kuzmyak et al 2003a), citing earlier research findings. These service levels are calculated for journeys to an urban centre and are caveated with notes on how the distance to the centre and its size influence the threshold levels. 7-8 dwelling units

'per residential acre' (presumably net, therefore) are considered sufficient to

support a bus service every 30 minutes (40 buses per day). A density of 12 units/acre is considered sufficient to support 'metro/rapid rail'. The density to support buses is comparable density to that cited by CABE (although no service frequency is specified by CABE) but CABE's cited threshold for a tram service is much higher than the threshold for 'metro/rapid rail'. This might be because, as the handbook points out, what is regarded as practicable is dependent on what assumptions are made about the feasible level of subsidy. In the UK context, the CABE figures seem more credible.

The various studies summarised above are difficult to compare because of the range of different units (acres / hectares and gross or net densities) that they use. Table 2 presents the key findings in a consolidated form, normalised to net densities per hectare, to aid comparison.

Table 2: Summary of relationships between public transport and housing density

Study	Approximate net density* (dwellings per hectare**)	Trip type	Proportion by sustainable modes
Cervero & Radisch 1996	5 17	non-work non-work	4% (walking, cycling, public transport) 15% (walking, cycling, public transport)
Cervero 2004	50 100 200	commute commute commute	24% (rail) 43% (rail) 67% (rail)
CABE 2005	25 60	will sustain bus service (quality not specified) will sustain a tram service	
Kuzmyak 2003a	20 30	will support half-hourly bus service will support 'metro/rapid rail'	
Melia 2006, Scheurer 2001 (studies of Vauban)	90-100	sufficient density to justify extension of a tram service	

* Where original study gives only gross density, it is assumed to relate to net density with a ratio of 0.5
** To facilitate comparison original numbers quoted per acre have been recalculated per hectare

2.3 The masterplanning criteria for density of development

- **New developments should be built to high density levels with a minimum net density of 100 dwellings per hectare:** this density is sufficient to sustain high quality public transport services within walking distance from the new homes. Provided the development is located reasonably close to strategic public transport corridors this density also makes it feasible to physically construct new connections to the existing public transport network, where the development is of sufficient scale. At such densities the number of

residents within the walking catchment of the public transport hub can also support associated development of a local centre with shops and amenities (see later sections on mixed land use and public transport). This density is in the mid-range of what CABE (2005) list as 'urban villages' or town infill and about triple the densities that they list as normal for 'garden cities' or 'suburban semis'. It is in the middle of the range of guideline densities in *The London Plan* (2008, Table 3A.2) for developments in suburban zones of dwellings with 3 habitable rooms per unit and in an area of good public transport. This density level should be considered as a minimum for all development locations, not just urban settings.

- **Developments in locations close to excellent public transport should be built to net densities above 200 dwellings per hectare:** strong transport hubs with high frequency 'turn-up-and-go' rail, light rail or tube can support housing densities at 200 dwellings per hectare and above, and in turn these densities make such public transport services feasible. At these high densities a high quality and density of other facilities and services can be viable in the locality. This density level is approximately the level at which the San Francisco data of Cervero (2004) shows that a majority of commuter trips are undertaken by public transport. It falls within the range of guideline densities in *The London Plan* (2008, Table 3A.2) for 'central' and 'urban' locations with excellent public transport access but is above that recommended for 'suburban' areas with equally good transport. Where transport hubs provide this level of service, development should not be less than 200 dwellings per hectare, even in suburban areas where existing densities are lower.

3 Local facilities and jobs

3.1 The key questions

- How much does provision of local facilities and jobs impact on travel habits?
- What sort of local facilities make a difference to travel behaviour?
- How close do facilities need to be to cut car use?

3.2 The evidence

- **How much does provision of local facilities and jobs impact on travel habits?**

Terms such as land-use mix or simply diversity (after Cervero and Kockelman 1997) are other ways of describing the presence or absence of local facilities and jobs.

A large study in Adelaide of influences on walking for transport purposes (i.e. not for leisure) found that people living in areas that had higher proportions of shops and businesses on average spent 40 minutes more each week walking (Cerin et al 2007). The study showed a statistical correlation between the amount of walking and the number of different types of destination reported to be within a 5 minute walk of home, with food shops showing a particularly strong correlation. Cafes and restaurants emerged as the type of destination most likely to be visited more often on foot when close-by. Parents of children living within a 5 minute walk from school reported 60 minutes more transport-related walking per week than parents of children living more than 30 minutes walk away from a school[2]. The biggest contributor to the total amount of transport-related walking was proximity to the workplace, for women in particular.

In another study, 430 households that moved house in Seattle were studied to see if their travel habits changed when they moved from one type of area to another (Krizek 2003). The research used a land-use measure that combines density, street connectivity and land-use mix, the latter comprising the number of food stores, eating/drinking places and general retailers. Findings were that vehicle miles per household fell by some 5 miles per day when a household moved from a suburban area where these factors were low to a 'traditional' area where these factors were high.

A study of American Housing Survey data (Cervero 1996) found a relationship between shops and mixed land use in a person's area of residence and their mode of travel to work, even where the distance of travel required public transport. The study's measure of land-use mix included a yes/no score for shops or other non-residential buildings within 300 feet of the residence and a yes/no scoring for presence/absence of a grocery or drug store between 300 feet and a mile. Where shops were within 300 feet, which the study considers 'convenient walking distance', there was more commuting by public transport, walking and cycling. This was not the case where facilities were further away. The study concludes that having commercial and other activities within 300 feet lowers the probability of driving to work (car driver mode share) by 2 - 5%. The study attributes this influence to whether or not commuters travelling without a car are easily able to do other tasks on their way to and from work. For people living just one mile from work, the study finds that the influence of mixed land use is more

[2] This effect however, was correlated with parents who also indicated that they had a preference for living close to a school, i.e. they may have chosen to live there in order to be able to walk to school, so the statistical correlation with walking does not necessarily indicate straightforward cause-and-effect.

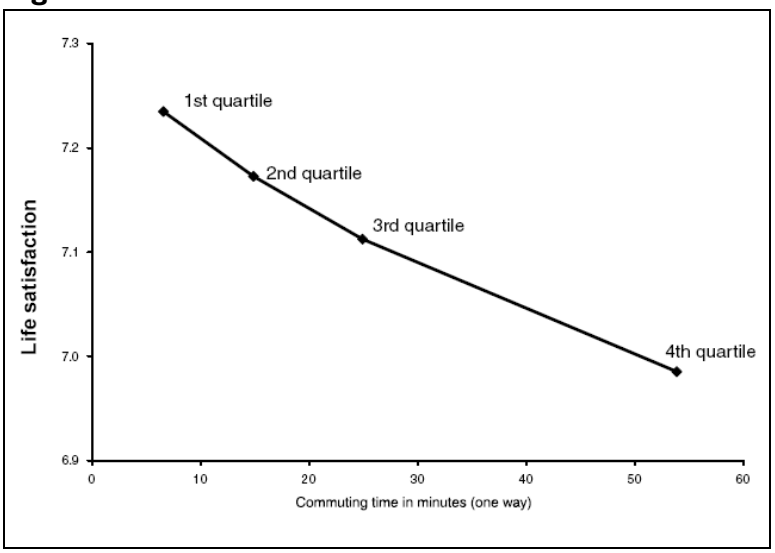
marked, causing a rise in the walking or cycling share of trips to work from 38% to 55% (calculated for households all of whom have one vehicle and live in areas of the same 'high' density).

Whether more sustainable travel patterns are generated by placing employment sites amongst residential areas appears to depend on factors such as the type of employment in question and where those residential/employment areas are, relative to access from the public transport network. The reviews by Litman (2008) and Kuzmyak et al. (2003a) both discuss the failure of research to grapple with the multiple factors that can operate in different directions. So, for example, in an area that provides both homes and jobs, people who both live and work there will have short commute distances and more options to walk and cycle. However, if employment is dispersed to suburbs that are hard to access without a vehicle then their workers who do not live locally will tend to access employment at those sites by car. A study of travel in Minneapolis showed that where employment is concentrated in central areas of the city the proportion of commuter trips by public transport is ten times higher than to employers in other parts of the city (Barnes and Davies 2001). This is attributed to the comparatively good public transport to the central area combined with the inconvenience of driving and the cost of parking. Another complicating factor is that employers who require a high proportion of higher-skill-higher-wage workers will tend to need to draw on a larger catchment area. Analysis of data from the Scottish Household Survey (Barker and Connolly 2006) showed strong correlation between commute distance and skill/wage level: people working in professional occupations travel, on average, twice as far to work as those who work in unskilled occupations (and the average commute of those in partly-skilled occupations falls in between).

Definitions of employment catchments also need to take into account the body of evidence that journey-to-work trips are subject to a psychological travel time budget of approximately one hour per day, representing how much time, in practice, the average person is prepared to spend travelling. Metz (2008) points out that the UK average travel time per person, presently 385 hours per year, has remained essentially the same over the 30 years that data is available, despite that period covering a doubling in car ownership and a 60% increase in the average distance travelled (see also, for example, Kenworthy and Laube, 1999; Curtis 1996). A similar travel time budget, according to Metz, appears to be broadly valid for other countries, although differences are apparent *within* populations. A personal travel time budget of one hour translates to a commute time radius of 30 minutes. A slightly different perspective on the same issue is provided by Stutzer and Frey (2004) from analysis of the long-running German Socio-Economic Panel Study which recorded subjective well-being with the question: 'How satisfied are you with your life, all things considered?' Their results plot what the authors term 'a sizeable negative correlation

between commuting time and individuals' well-being' (see Figure 4).

Figure 4: Decrease of life satisfaction with increase in commuting time



Source: Stutzer and Frey (2008), based on German Socio-Economic panel data 1985-2003

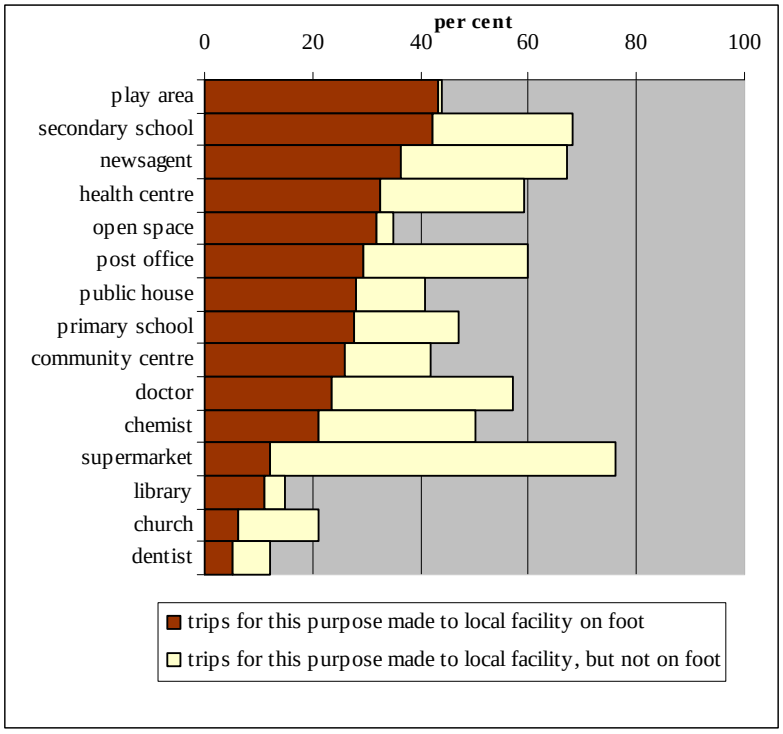
The considerations outlined above, although potentially contradictory, nevertheless seem to point to a logical combination of options for employment location that will tend to reduce car dependency. Employers who need to draw on large catchments to fill specialist high-skill jobs or to source large numbers of employees, should be concentrated at the centres of public transport networks (which should themselves be a focus of residential developments if space is available). Residential developments further from the centre of the public transport network (that should still be strongly connected to it) should include medium-sized or small employers that can draw lower skilled employees from a local catchment, and that local catchment should be planned so that it is primarily accessible by walking, cycling and public transport. For both situations the catchment size should be defined in terms of thirty minutes travel time using sustainable modes.

- **What sort of local facilities make a difference to travel behaviour?**

An examination of travel patterns in five large housing developments in SW England (Winter et al. 1995) considered 16 types of facility. The general finding was that local provision of services leads to local use. The study identified eight important 'day-to-day facilities' which merit inclusion in all large housing developments because of their potential to reduce everyday car travel. These are: food-shop, newsagent, open space, post office, primary school, pub, supermarket, and secondary school. The findings showed that if there was, for example, a newsagent within the housing development, it absorbed two-thirds of all newsagent trips, of which slightly over half were on foot. The study shows that further

facilities which are not such everyday destinations, will also absorb a majority of the relevant type of trip if they are situated within the development. This applies to health centres and chemists. If the criterion of importance is the proportion of a relevant type of trip that changes from walking to driving if the facility is not within the development, then the list expands further and shows, in order of descending priority: library, community centre, secondary school, health centre, doctor, dentist, play area, supermarket, pub, open space. For all of these, when they are not local, there is a decline of over 50% in the proportion of relevant trips made by walking. For a secondary school within the development a large majority (67%) of trips are on foot, but if it is situated outside the development only a small minority of trips to it from the development will be made on foot.

Figure 5: Shares of trips captured by local facilities within housing developments, and proportion of these on foot



Source: *Less Traffic where People Live* (Sloman 2003) adapted from Winter et al. (1995)

A study of travel habits in Holland (Meurs and Haaijer, 2001) found that where schools were close to home, fewer trips were made by car, and the nearer the school the fewer the car trips. Where the place of work was close to home there were also fewer car trips. The study drew a distinction between daily and weekly shopping, finding that for daily shopping more trips were made on foot and by bike when the shop was nearby, but that for weekly shopping the proportion done by vehicle was similar whether the location was close or further afield. This

finding tallies with the study of Winter et al. (1995), described above, who found that, even when a supermarket is locally situated, the great majority of visits to it are by car, in which respect it is unlike nearly every other facility that they studied.

- **How close do facilities need to be to cut car use?**

Neighbourhood surveys in the UK (DoE/DoT 1993) looked at travel mode split for journeys to 'local centres'. Up to one kilometre, walking was the dominant mode of access (63% of trips), followed by cycling (19%). Between one kilometre and 1.6 km cycling became the largest mode share (27%) followed by walking (20%). Above this distance (1.6 - 5 km) cycling and walking were supplanted by public transport and car, in roughly equal proportions. The facilities at these local centres that were most utilised were food shops, followed by newsagents then banks, post offices and medical services.

3.3 The masterplanning criteria for local facilities and jobs

- **Residential developments should include or be closely associated with facilities that are used on an 'every day' basis – i.e. shop selling food and fresh groceries, newsagent, open space with childrens' play area, post office and cash point, creche/ nursery and primary school, eating and drinking places, supermarket, and secondary school:** the results of the studies cited probably should be updated to include an internet/web access point, which is now a busy feature of some libraries.

- **Larger residential developments should also include or be close to facilities which can capture a large proportion of trips locally – i.e. medical centre, chemist, community centre:** other facilities such as dentist and library also come into this category.

- **Residential developments should include or be close to as wide a range of shops and facilities as possible:** including leisure facilities.

- **The local centre with shops and facilities should be within walking distance of all residences - 800m:** 800m approximately corresponds to a 10 minute walk (see 'ped-shed' definition in section on public transport)

- **Local centres should be pedestrian and cycle access only, so far as possible:** with attractive pedestrian-friendly and cyclist-friendly design to both the shopping area itself and its access routes (see section on street layout and design).

- **Employment planned in association with the development should be able to source the required staff from within a 30 minute travel time catchment on public transport, plus walking and cycling distance around the site:** This means that very large employers or employers requiring a high proportion of specialist staff can only be part of housing developments where these are built at major public transport hubs. To facilitate work access for residents seeking more specialist jobs that are unlikely to be available locally the planned development should have public transport connections to a major urban centre within 30 minutes travel time.

- **Employment planned in association with the development should include many jobs that can easily be filled from a local pool of unskilled or semi-skilled labour:** this is to some degree a by-product of an area that is rich in local shops and facilities.

- **Car access to planned employment sites and local shopping centres should be more expensive, less convenient, and less rapid in comparison to access by public transport, bike or walking:** This may require constraints on parking provision or parking charges (see also sections on car parking and restraint to car movements).

4 Street layout and design

4.1 The key questions

- How does local street layout and design alter residents' travel behaviour?

4.2 The evidence

- **How does local street layout and design alter residents' travel behaviour?**

In a comparison of four neighbourhoods in San Francisco Bay area, Handy et al (2005) looked at people who moved from one type of area to another to see if a change in their local environment caused a change in their travel behaviour. The study found that people walked more when they moved to a neighbourhood that scored more highly on measures constructed to reflect accessibility, attractiveness and safety. The safety measure included perceptions of low levels of car traffic, good street lighting and safety for walking. The attractiveness measure included general visual appeal, variety of housing styles, good upkeep and presence of big street trees. The accessibility measure included proximity of shops and amenities. In common with most studies of American

environments, this study uses a measure of accessibility that is flawed because it can mean that destinations tend to become more accessible by car as well as by non-motorised modes. More informative measures of accessibility distinguish walking or cycling access from car access. Nevertheless, people moving to neighbourhoods characterised as 'more accessible' did tend to drive less. Considering the whole population (i.e. not just those who had moved house) this study also found a general correlation that residents in 'suburban' areas drive 18% further than residents of 'traditional areas'.

In their study of Dutch travel habits, Meurs and Haaijer (2001) were also able to look at travel behaviour changes when people moved house, using 189 members of a survey panel that moved between surveys in 1990 and 1999. They found that moving to a pedestrian priority area (i.e. woonerf or home zone) or moving to a 30 km/hr zone reduced the number of car trips. In addition, they analysed changes of travel behaviour for households who had not moved, but where the local street environment had significantly changed. They found that most behaviour change occurred after: '*construction of a pedestrian priority area (fewer trips by all means of transport); planting in the neighbourhood (more trips on foot); [increasing] accessibility of the main road by car (more car trips at the expense of the bike).'* They noted that the reverse was also true in each case, e.g. reduced vehicle accessibility to the main road led to fewer car trips and more cycle trips. The measure of access to the main road was whether or not it could be reached by car in less than a minute.

Moudon et al (1997) undertook pedestrian counts in areas of Puget Sound, Washington State, that had different street patterns and pedestrian provision, but that were similar in density, land-mix, car ownership and income. Each count site was on the edge of a 'neighbourhood commercial centre' containing 'all of the retail facilities necessary for daily living', with an average of 6000 people living within a radius of ½ mile. The study found three times the number of pedestrians in areas with small block sizes (300-400ft) and with continuous pavements compared with areas with large blocks (1000-1300ft) and incomplete pavements. Pavement is probably the most basic provision for pedestrians, but the study notes in passing that 'more than half of the residential areas of Seattle do not have sidewalks'. Although the study areas were standardised in many respects, the differing nature of the shopping centres themselves seems likely to have also been a factor in the differences in pedestrian traffic. In the areas with more pedestrians, the centres were formed of a single main street lined with shops, some in mixed-use buildings, whereas in the areas where pedestrians were scarcer, the retail facilities were 'spread through large blocks of private land dominated by parking.' The study includes recommendations that recognise that accessibility on foot requires different routes to those provided for cars, and recommends a 'walkway network' around the local centres on a 200-foot grid, through the open land and car park

areas surrounding apartment buildings and stores. The study also records that the more pedestrian-friendly areas had more cyclists.

A large study of King County, Washington, (which includes Seattle), also concluded that street 'connectivity' had a positive influence on walking (Frank et al. 2005). This was measured by how closely the street pattern approximated to a grid pattern, using density of junctions as a proxy. It found that for each quartile increase in the number of intersections per square kilometre there was a 14% increase in the likelihood of walking for non-work travel. As noted before, a rise in this measure also creates shorter more direct routes for cars. They also found a correlation between the amount of walking and the amount of pavement in an area.

Melia (2008) has advanced the idea of 'filtered permeability' to counter the idea that a move to grid-pattern streets is, of itself, sufficient to achieve high levels of mode shift. He particularly points out the inadequacy of the UK's re-drafted *Manual for Streets*, which he criticises for adopting American-style grid patterns which do not discriminate between car accessibility and pedestrian or cyclist accessibility. Melia instead recommends that the UK follow European examples of filtered permeability, where direct access is deliberately restricted for private motor vehicles, but maximised for walking, cycling and public transport:

'In cities such as Freiburg, Groningen and Zwolle the principle of filtered permeability is acknowledged as a key element in their success in restraining car use and promoting alternatives. Through traffic is channelled onto a limited network of main roads. Suburban developments are often designed as giant culs de sac for cars, while short cuts provide a far more permeable network for the sustainable modes. People use these modes – particularly cycling – because of the time and convenience advantage compared to travelling by car.'

For Groningen, a city of 180,000 where cycle journeys account for 60% of non-pedestrian trips (Melia 2007), he describes the guiding principles as:

'compact city planning with large employment areas within the city boundaries, a comprehensive network of separate cycle routes with priority over other vehicles, and a policy of channelling through-traffic. Transport official Cor van der Klaauw describes this as a 'coarse grain' for cars and a 'fine grain' for bikes. Vehicular access points to residential areas are limited, while bridges, tunnels, bus gates and a panoply of short cuts assist the more sustainable modes.'

A main road cutting through the middle of a deprived estate in Glasgow has been studied for changes in levels of walking before and after a fairly basic application of traffic calming: just five speed cushions, two zebra crossings (but with adjacent railings), and creation of parking bays (Morrison et al. 2004). Somewhat surprisingly, the survey of

residents found that 20% reported walking more in the area as a result of the scheme. This finding was corroborated by before-and-after pedestrian counts at three different sites on the main road itself, which found substantial increases in pedestrians. Adult pedestrian traffic increased by between 11% and 55% at the three sites, the latter corresponding to over 700 extra pedestrians on the survey day. All three sites saw increases in children walking, 18% more at one site and over 40% at the other two, close to 400 extra children per day at each. This shows some correspondence with the questionnaire of residents, where more than 10% of respondents gave positive answers to two questions that asked if they allowed their children to play out more or to walk more. The research also asked questions enabling the researchers to score respondents' health (in fact the primary purpose of the research), and found a statistically significant improvement in physical health scores after the traffic calming scheme was installed. These results are greater than might be expected for an apparently minor traffic calming scheme, but perhaps indicate that one busy hostile-feeling road through a residential area can have a major effect on whether people choose to walk.

4.3 The masterplanning criteria for street layout and design

- **Filtered permeability:** giving direct access for pedestrians and cyclists from home to local facilities, shops and public transport, combined with limited points for vehicle access that are indirectly routed and have low speed limits.

- **Low speed limits:** throughout the estate area. Even on a large estate's main distributory road the highest speed limit should be set at 20mph, and road design should be such as to make this limit largely self-enforcing.

- **Home zone residential street design:** most of an estate should be designed according to home zone principles, i.e. to physically restrict vehicles to approximately walking speed and to emphasise that pedestrians should be given priority over vehicles. This generally entails opening the whole street area to pedestrian activity with large proportions of non-tarmac surface, with trees, seats, planters, play equipment and other items making the street pleasant for pedestrians whilst obstructing driver sight lines and obliging drivers to move slowly.

- **A network of safe cycling and pedestrian routes:** new developments should be permeated with safe cycling and pedestrian routes to reach all different types of local destination. Separate cycle and pedestrian paths should be used in preference to shared use paths.

- **Pedestrianised local centres with cycle access:** local centres (with shops and other facilities, generally grouped around a public transport hub) should be largely pedestrianised.

- **People-centred attractive street design:** this can include many features specific to the locality in question but general principles include provision of plants and trees, seats and play equipment, a safe feeling with clear sight lines and good lighting, varied building design, interesting interactions between the street and shops, cafes and gardens, generous width pavements, 'legible' design so that pedestrians can easily work out the route they need to take and follow an unobstructed 'desire line', avoidance of large tarmac areas that have unrestricted access to vehicles.

- **Cycle storage at local destinations:** local shops, facilities and public transport access points should be equipped with cycle parking that is free, high profile, convenient, plentiful, dry, well lit and secure.

5 Public transport quality and proximity

5.1 The key questions

- How much can public transport impact on travel habits?
- How close does public transport have to be to affect travel habits?
- How good does public transport have to be to affect travel habits?
- Does the type of public transport influence travel behaviour?
- Does the environment around a station or bus stop affect its level of use?

5.2 The evidence

- **How much can public transport affect travel habits?**

At a city-wide scale, some cities have bucked the prevalent growth in car use through, in combination with other measures, provision of good public transport. Newman and Kenworthy (1996) have described how Zurich achieved a 10% reduction in car mode share for work commuting trips between 1980 and 1990. The city invested in trams to achieve a maximum service interval of 6 minutes and integrated the trams with an S-Bahn (rail) system. They also highlighted Freiburg, where total trips grew 30% between 1976 and 1991 with hardly any increase in car trips (1% increase). The increased travel was accommodated by a 53% increase in public transport trips - and a doubling of cycling trips. This equates to a 13% decrease in car mode share over this period, from 60% to 47% of total trips.

Havlick and Newman (1998) examine the effects of 'transit-led' development (i.e. development centred on public-transport) in Stockholm. These policies led to increased population density in the central city, the inner city and the outer suburbs. The new housing was built as 'urban villages' around the high quality rail system, both in the inner city and in new outer suburbs. They comment:

'*These new developments are all dense, mixed use areas with a careful eye for the kind of design characteristics found in the old inner city of Stockholm. They have been popular as places to live and work'.*

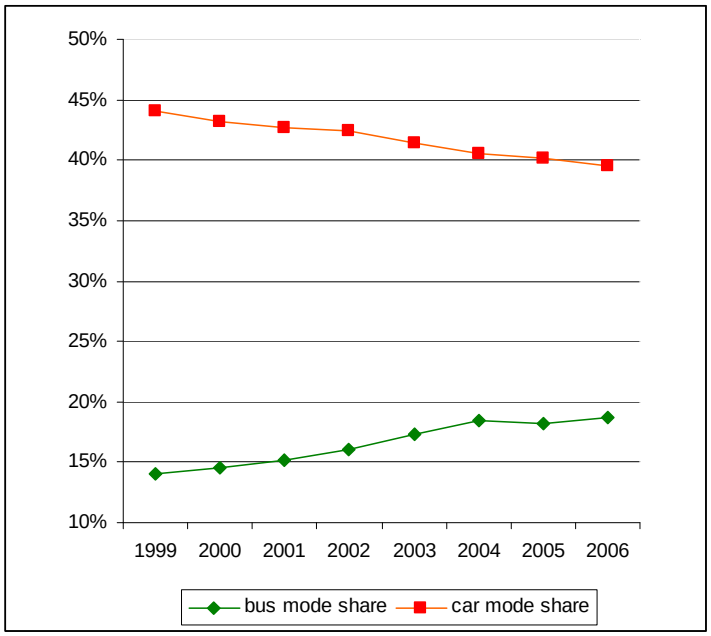
Over the decade studied, car use in Stockholm fell 5% (4867 to 4638 miles per year per person) whilst public transport use increased 14% (from 304 to 348 trips per year per person).

Rabinovitch (1996) described development of the city-wide bus-based public transport system in Curitiba, Brazil, based on road space allocation to dedicated high-speed high-frequency arterial bus routes. This system now carries 75% of all commuters, a quarter of whom used to commute by car.

A sustained programme of investment in buses has also been a feature of transport policy in London, another city where car mode share has been reduced. As the graph in Figure 6 illustrates, the drop in car mode share is accounted for by an increase in bus mode share. From 1999 to 2006 bus mode share rose 5% (from 14% to 19%) whilst car mode share fell 5% (from 44% to 39%) (data from *London Travel Report 2007*). The measures responsible for the increased ridership included more frequent services on many routes, introduction of a competitively priced simple flat fare system, and new vehicles that, in conjunction with pre-paid ticketing using a proximity card system, enabled faster boarding times. Combined with bus priority measures to bypass congestion at key locations, these improvements resulted in quicker and more reliable bus services. In central London, the congestion charge also played an important role in encouraging bus use.

At the level of individual developments or neighbourhoods, threefold differences in levels of car use have been attributed to differences in transit (public transport) provision and building density between different neighbourhoods of American cities (a study of Chicago, Los Angeles and San Francisco by Holtzclaw et al 2002). The study concludes that: *'differences in density and transit can [between them] explain over 3:1 variations in vehicle miles driven per household'.*

Figure 6: Changes in trip mode share in London



Source: plotted from data derived from *London Travel Report 2007*

Analysis of data from all of the rail services in California's major cities (Lund et al. 2004) concludes that residents of areas within ½ mile (walking distance) of rail stations are five times more likely to commute by train than the same city's average resident. All stations considered had service frequencies of 15 minutes or better.

On the scale of large new developments of thousands of new homes, examples from Freiburg are again relevant. Good public transport provision has been central to achieving low car use at two large developments on the edge of Freiburg – Rieselfeld (10,000 residents) and Vauban (5000 residents). Extensions to the tram network form spines to both developments. In the case of Rieselfeld, the tram was put in before the site was developed; in the case of Vauban, although always part of the plan, it arrived a few years after the site was developed, with an interim service being provided by frequent buses (Urbed 2008). During the morning peak hour, trams to the town centre depart from Vauban every 5 minutes (Freiburg timetable). Car mode share at Vauban is only 16% of all trips, significantly below the average for Freiburg as a whole, despite the location of Vauban on the edge of the city (Scheurer 2001, also discussed in Melia 2006). Many features of Vauban, as discussed elsewhere in this document, combine to encourage non-car travel, and walking and cycling mode share at 64% of trips exceeds that of public transport at 19%. However, 32% of residents have some sort of public transport season ticket (Scheurer 2001).

The Oxfordshire study by Curtis (1996), mentioned earlier in section 1.2 on Location, looked at new housing developments ranging between 350 to 700 houses. This study found a relationship between availability of public transport and car mode share. A development on the outskirts of Bicester with poor public transport had the highest car mode share for commuting (95%, measured as driver plus passenger trips) and only 1% of commuter trips by bus or train. In comparison, a housing development close to Didcot Parkway rail station had 11% of commuter trips by train (and 80% by car); Kidlington, a housing development with a frequent bus service into Oxford had 17% of commuter trips by bus (and 65% by car).

- **How close does public transport have to be to affect travel habits?**

The distance that people tend to walk to railway stations has been studied for three rail systems in San Francisco and Chicago (Kuzmyak et al. 2003a). Walking was found to be the dominant mode of station access for home-to-station distances up to 0.5 miles, 0.625 miles and 0.75 miles, for the three different railways. Above these distances those travelling to the station had come by car or by public transport. The data is interpreted as confirming previous assumptions that the maximum acceptable walking distance to rail stations is half to three quarters of a mile.

The 'liveable neighbourhoods' policy of Western Australian Government considers that 'a major transport stop, such as a station' has a 'walkable catchment' or 'ped-shed' (terms derived by analogy with river catchments and watersheds) defined by a 10-minute walking distance (Jones 2001 in WTPP). They equate this to a radius of 800m (i.e. equivalent to the ½ mile radius in the American study above).

This ped-shed concept is used as basis for recommendations for suburban infill and intensification in London by Urbed (2002), who suggest a 'city of villages' around 'local centres'. They recommend 800m ped-shed areas around urban centres that:

- *'Provide a range of local facilities and services so that the population of the Ped Shed can meet most of their daily needs on foot without having to travel to other centres';*
- *'Provide access to high-quality, frequent public transport so that local people can get access to the rest of London and particularly to employment without needing to use a car.'*

They recommend that new housing in ped-shed areas should be built at minimum densities of 50 dwellings per hectare. They list the local facilities required of a local centre as:

'a good range of food and convenience shopping along with services such as a post office, local council housing office, health centres and chemists. It should also include leisure facilities, such as pubs and cafes.'

The term 'transit zone' is used by Reconnecting America (2004) to describe a circle of ½ mile radius about a 'fixed-guideway transit' stop, on the basis that this zone is 'the geographic area within which transit is most likely to have an impact on travel behaviour of its residents'. Their research, covering all of America's fixed-guideway transit stops (over 3000), finds that households within transit zones own significantly fewer cars than households living outside them (0.9 cars/household c.f. 1.6 cars/household) and that many fewer residents of transit zones commute by car (54% c.f. 83%).

Public transport hubs can, of course, be designed to facilitate car use rather than pedestrian and cycle access. Curtis (2005) describes how some new railway stations in Perth have been designed to facilitate car use rather than access via walking or cycling and how this type of design also militates against development of a mixed-use local town centre:

'The railway planners have created mostly transit interchanges, placing stations within a freeway reserve [i.e. in the centre of a dual carriageway] with spacing predicated on larger, car-based patronage catchments. Land use transport integration is poor with isolated transport hubs and residential densities that are too low and beyond walking distance of railway stations. Railway stations are virtually impossible to adapt to an integrated centre concept. Thomsons Lake station for example, on the South West Metropolitan Railway, is portrayed as an integrated transit-oriented development. But integration will be a difficult task to achieve with a 100-metre freeway reserve running through the centre of the station precinct [used to mean the station's 800m walking catchment]. Designed to draw on motorised catchments, 1200 car parking spaces and 50 peak hour bus movements are to be provided in front of the station. This further limits the opportunity for active complementary land uses in close proximity and good pedestrian access to the station.'

Curtis (2005) plotted pedestrian access to another station with similar access problems (Warwick Rail Station), which may be contrasted with the much better access at Subiaco Station (see Figure 7).

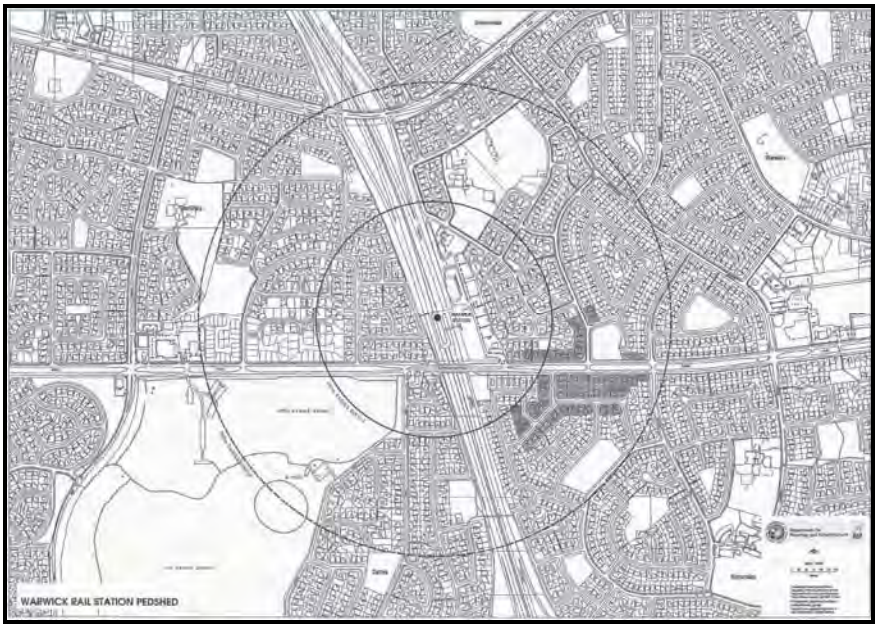
The point here is that in order to avoid car-dependency in new developments they should not be planned in conjunction with what in the UK would be termed 'parkway' or 'park-and-ride' stations.

Figure 7: Comparison of pedestrian-friendly and pedestrian-unfriendly catchments for two stations in Perth

Outer circles mark 800m from the stations as the crow flies. The shaded areas show the houses that are actually within 800m of the station measured along the route that must be walked - the real pedestrian catchment ('pedshed'). Because the road route pedestrians must follow to get to Warwick railway station (below) is so tortuous, strikingly few houses are within walking distance.

Warwick station does, in fact, have a pedestrian bridge to the western side of the freeway, but the study assessed that its design made it unusable for security reasons under the prevailing local circumstances, including during key times for commuters (personal communication from author, 2008).

Source: Curtis 2006



For less significant public transport links than train or metro stations, a smaller catchment area applies, because potential passengers will, in general, not be prepared to walk so far. For bus stops in urban settings, 300-400m, about a 5 minute maximum walking time, is often taken as a practical standard to determine spacing of bus stops (e.g. Northamptonshire County Council 2007 *Transport Strategy for Growth, Appendix 3, Guidance on creating lasting modal shift*).

- **How good does public transport have to be to impact on travel habits?**

The relation between rail use and several decades of development has been studied near seven Washington metro-rail stations in Arlington County, Virginia (Cervero 2004). Service levels have risen as development near the stations has taken place. The study shows a correlation that where service levels at a station have increased by 100 passenger spaces per day and 100 extra residential units have been built in the area surrounding the station, then rail trips starting or ending at the station have risen by 50 per day. When the study statistically isolates just the service levels (i.e. no extra development or other changes) it calculates that 1000 extra passenger spaces through a station per day would attract 210 additional passengers.

For rail, some UK service operators refer to a 'turn-up-and-go' level of service, implying a behavioural switching point at a level of service frequency above which passengers tend to switch from aiming for a timetabled service and instead just show up and wait. Whilst this must be dependent on the average trip time in question, 15 minutes between trains has been used by Transport for London as a minimum 'high frequency turn-up-and-go' standard for cross-London rail routes (TfL response to Network Rail, 2006).

For buses (not running on segregated busways), which can suffer delays in traffic that tend to result in irregular service intervals and 'bunching', there is some evidence that perhaps a more frequent service interval of 10 minutes or less is required to achieve a passenger perception of a 'turn-up-and-go' service. Analysis of bus services in Northamptonshire (Northamptonshire County Council 2007, *Transport Strategy for Growth, Appendix 3, Guidance on creating lasting modal shift*) showed that the services which attract enough passengers to be commercially successful tend to have service intervals of no longer than 10 minutes.

For new developments in Vienna, the city has a policy of providing 6 minute trams even when the estates are still building sites with relatively few residents. Roger Levett (2003) quotes a city official:

"It does look a bit wasteful. But the city council has a policy that when new housing is built there should never be a time when anybody has to be dependent on a car, because once they get into the habit it is hard to change. So before anybody can move in, the public transport has to be in place, working to the same standard we expect everywhere else in the city."

- **Does the type of public transport influence travel behaviour?**

In a world-wide comparison of many cities, Kenworthy and Laube (1999) conclude: *'cities with a higher level of rail service within their transit systems generally have better utilised transit and lower automobile dependence'*. Considering only the American cities in their study, they point out that those with rail systems average 117 public transport trips per capita per year, compared with just 30 for cities with only buses. It does not seem that this disparity can be explained away by variations between different cities' expenditure on public transport, because elsewhere the study presents the counterintuitive finding that cities with higher public transport passenger miles spend a *lower* proportion of their gross regional product on their public transport. This outcome is partly explained by the study's finding that high public transport use is most strongly correlated to urban density, which enables efficient public transport operation. The authors point out that only in cities where rail plays the largest role is the overall operating speed of public transport faster than general road traffic. Their view is that the permanence, reliability and visibility of rail systems are important to achieving services that can compete with cars. Although the authors do not say it, light rail, segregated tramways and segregated busways can also have these salient features.

These findings are borne out by Litman (2006) who finds that in American cities where rail is a major component of the public transport system there is 400% higher per capita ridership than in cities with only bus transport. The rail-dominated systems' operating costs are 33% less per passenger mile and achieve a higher proportion of cost recovery from fares.

- **Does the environment around a station or bus stop affect its level of use?**

Bogota has developed a bus rapid transit system based on corridors with high frequency rapid services. A study (Estupinan and Rodriguez 2008) of the differences in the street environment within a 250m radius of stops with equivalent services showed that where the environment for walking is better there is higher use of the buses. This was measured by giving a positive weighting to variables such as width of the pavement, buffering of the path from the road, lack of obstructions, feeling of friendliness, how well buildings physically related to the road, benches, crossings, lighting.

5.3 The masterplanning criteria for public transport

- **Public-transport centred development:** all new developments should centre on high quality public transport that provides rapid connection to the nearest major centre of employment and major urban facilities. Sites which currently have poor public transport should not be developed until public transport has been improved. Housing developments that are too small to justify new high quality public transport connections should only be built where the existing public transport infrastructure is already strong.

- **Dedicated public transport routeways for large developments:** for a scale of development where thousands of new homes are intended, the development should be served by segregated public transport routeways that guarantee reliable services unaffected by traffic congestion, that can therefore be competitive on journey time with private motor vehicles, and that are highly visible to potential users (and to potential investors in housing or businesses). This means segregated busways, tramways or railways.

- **800m maximum distance from residences to the main public transport hub:** this distance defines a 10-minute walk 'ped shed' around a major public transport hub that is appropriate for development. Services for local links, such as buses, should be closer - 400m maximum.

- **Direct high quality pedestrian and cycle links to public transport:** (see also the section on street layout and design) walkers and cyclists should be able to access public transport by routes that are as close to a straight line as possible and offer access that is faster and more convenient than by car. The routes should be designed to offer an attractive and safe environment i.e. with trees and other planting, good lighting, passing local shops, cafes and other facilities.

- **Cycle storage at transport hubs:** cycle storage facilities should be large, under cover and prominently sited close to station entrances (as per good European practice.

- **Minimal car parking at transport hubs:** new developments should *not* centre on, or be planned in association with, park-and-ride style transport hubs.

6 Car Parking

6.1 The key questions

- How does the amount of parking provision impact on travel habits?
- What parking should be provided in a new development?
- How does the cost of parking impact on travel habits?

6.2 The evidence

- **How does the amount of parking provision impact on travel habits?**

At a city-wide level, availability of parking in central areas has been shown to have a marked inverse correlation to commuting by public transport. A review by Kuzmyak et al. (2003b) notes the strength of the relationship emerging from a study of eight Canadian cities. For example, in comparison with Montreal, Saskatoon has more than triple the parking provision per square foot of office space, and has less than a third the peak hour transit share (15% c.f. 49%). The review notes that this study does not disaggregate the tendency for reduced parking supply to also raise the market price of parking. Other factors such as transit quality and urban form also influence the comparison.

Copenhagen adopted a long-term policy for its city centre to remove 3% of parking capacity every year and to avoid building any extra roads. Havlick and Newman (1998) consider these policies to be vital contributors to a range of measures that have led to zero traffic growth in the old city over a fifteen year period.

Three mixed-use town centres in the suburbs of Toronto have been compared by Filion (2001), including assessment of the apparent effects of different parking provision. A survey of the trips made within the centres by people working in offices in the locality showed that where no free parking was available, two thirds of intracentre trips were on foot and the car mode share was half that of the other two centres where there was 'plentiful free parking'. Data for modal split of all journeys to and from these centres also showed that public transport had the highest share in the centre without free parking, but the extent of this effect could not be disaggregated from the fact that this centre was also served by a better public transport service.

The highest level of control on residential parking is a contractual obligation upon householders not to own vehicles. A model settlement of 244 households in Vienna has taken this approach. A survey of the householders (Ornetzeder et al. 2008) compared this

settlement with another project nearby with similar characteristics but without the car-free obligation upon residents. They found that 55% of the households in the car-free project did not use a car at all in the survey year, compared with 30% in the comparison project. Households in the reference project recorded nearly 11,000km annual car mileage. This compared with 700km average car mileage in the car-free project. The average would have been less than half this figure without the substantial mileage covered by one household who owned a car in breach of the contract – although perhaps the all-in average is a more likely representation of real-life enforcement conditions. Excluding this one car owner, the great majority of the car mileage of the car-free households was through the use of car-club vehicles. Car-free residents used bicycles four times as much and were twice as likely to own an annual public transport season ticket (48% vs 24%).

- **What parking should be provided in a new development?**

A lesser restriction on car parking is described as a case study of the European Transland project looking at integration of transport and land use planning (Paulley and Pedler 2000). The suburban development of Messestadt Riem was built on the old Munich airport site, covering 556 hectares on the edge of the city, some 10km from the city centre (Munich Metro Map). It was planned as a mixed use development with housing, industry, leisure facilities and large green spaces. It was designed to have its own identity 'as opposed to the so-called dormitory towns', with deliberate sustainable travel objectives, including reducing travel distances and use of the private car whilst boosting non-motorised modes and public transport. To this end the Metro system was extended to the site to provide two stations, and bus services were upgraded. Despite being on the edge of the city, the development only has an average of 0.75 parking spaces per residential unit. This compares with an average of one for Munich as a whole.

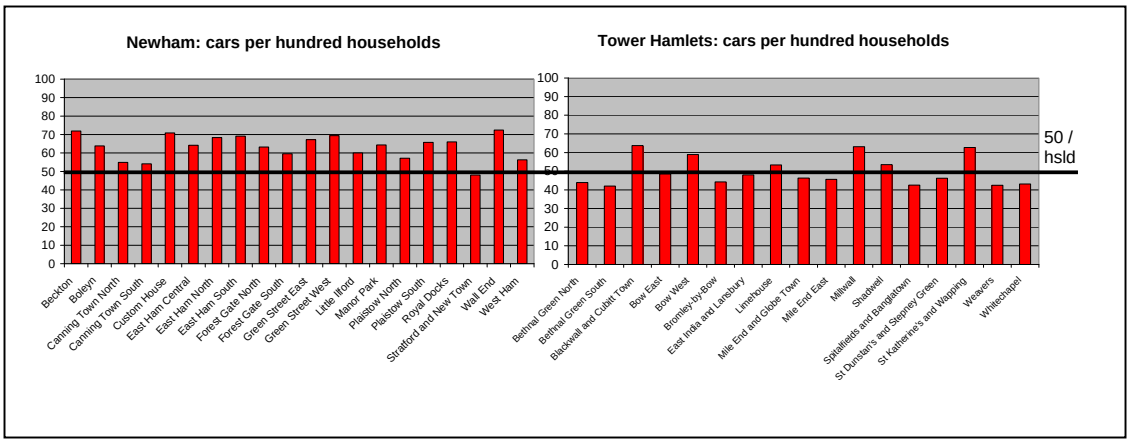
Another case study in the Transland report (Paulley and Pedler 2000 described segregation of parking spaces from residential units without accompanying rules on car ownership. Sudstadt is a high-density mixed-use redevelopment of a former military area to the South of Tubingen planned to eventually house 7000 residents and to offer 2500 jobs. A proportion of the buildings are mixed use. The new district is designed to reduce motorised modes of travel and to reduce distances of travel. It includes pedestrian zones, cycle paths, traffic calming and areas with controlled car access. Buses run within 300m of all residences. Parking is 300m from housing units in multi-storey car parks at the edge of the residential areas, whilst in the centre of the district the only parking provided is for retailers and people with disabilities (i.e. *no* parking provision for people living there).

The Commission for Architecture and the Built Environment (CABE 2005) considers that 100 dwellings per hectare is the density above which multi-storey or underground parking becomes viable. This conclusion is apparently drawn from a review of the literature, but it is not specified whether the threshold is on the basis of building costs, or maximum reasonable walking distance to car-owners' surrounding dwellings.

GWL Terrein, an estate of 600 residential units in Amsterdam, also adopts the approach of placing parking at the periphery of the site (Young 2008, CABE 2008). The site is two miles from the city centre, close to two tram lines and buses. It includes social housing and private housing as well as shops, cafes and small businesses. The gross residential density of the site is 100 residential units per hectare. Parking provision, which is controlled by an official allocation process, is limited to less than 0.25 parking spaces per residential unit, including parking reserved for visitors.

The UK 2001 census data enables a ward-by-ward view of the present number of cars per household in areas earmarked for future housing development. A ward, averaging some 4000 to 5000 households, provides data on a scale comparable to that of the larger housing developments planned for the Thames Gateway and other housing growth areas. Figure 8 (2001 Census data, original analysis for this report) shows car ownership levels for Newham and Tower Hamlets, the two London boroughs due for most new housing development (see Appendix for a full listing of anticipated housing allocations).

Figure 8: Car ownership levels in two London boroughs



Source: data from 2001 UK Census, original analysis for this report

In Tower Hamlets there are less than 50 cars per hundred households in a large majority of the wards. In Newham the dominant category is 60-70 cars per hundred households, although other data shows that households without any vehicle comprise over 50% of

households in seven wards and more than 40% of households in all wards. It is notable that the ward where car ownership is less than 50 per hundred households includes Stratford, the most important public transport hub in the borough. The borough of Islington (not graphed) is, perhaps surprisingly, in view of its wealthier demographic, broadly similar to Tower Hamlets, with most wards showing 50 or fewer cars per hundred households. The implication for parking levels in new developments would appear to be that a parking target of about 50 spaces per hundred households should be considered achievable. This would represent a moderately progressive approach in an area like Newham where it approximates to the levels in the best wards in the borough. In more centrally situated areas such a target would just ensure that new developments were no worse than the present status quo.

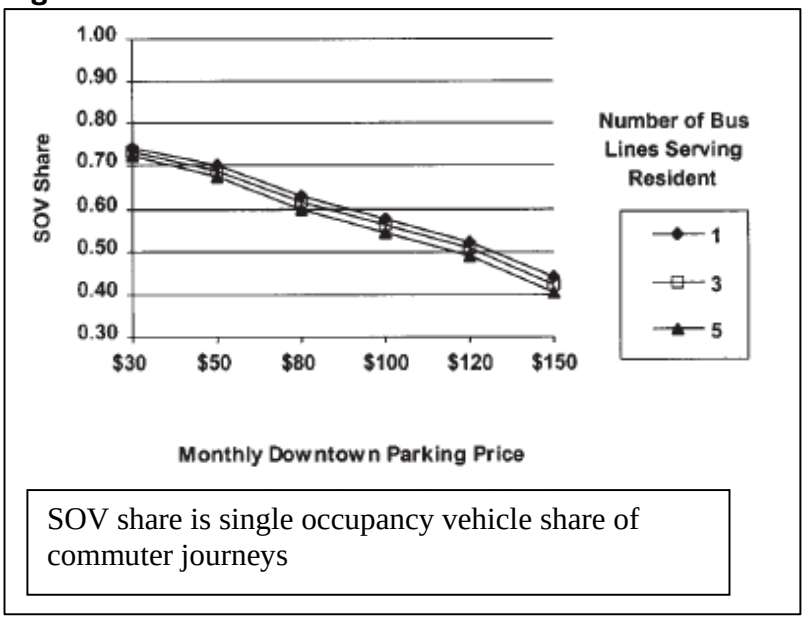
- **How does the cost of parking impact on travel habits?**

Case studies of seven employment sites in North America show a 25% difference in car mode share of journeys to work between employers who allow their staff free parking and those who charge their staff the cost of providing parking (Shoup 1994, as reviewed in Vaca and Kuzmyak, 2005). At sites without parking charges, 67% of staff arrived as solo drivers, compared with 42% where a parking charge applied. This study considered employees who experienced different parking policies at the same location and also included two before-and-after comparisons for firms that altered their charging policy. (Evidence of the effect of parking controls on the efficacy of corporate travel plans is discussed in section 8 on Smart travel behaviour change programmes.)

Dueker et al. (1998) considered the effect of parking price on commuters in areas of Portland, Oregon, served by equivalent public transport. For commuters to the city centre from suburban areas with comparable bus services, 10% increase in the monthly cost of parking from $80 to $88 caused single occupancy vehicle commuting to drop 5% (an elasticity of minus 0.46).

The bulk of the academic evidence about the impact of parking price stems from studies of commuter parking, but a city-wide San Francisco parking tax in the 1970s provided the basis for a wider analysis (case study in Vaca and Kuzmyak 2005). Overall elasticity to price was about minus 0.3 (i.e. 10% increase in price would cause 3% reduction in parking demand) but this overall figure apparently disguised different responses amongst shoppers and commuters. Shoppers to some degree accommodated the higher charges by parking for shorter periods, an option not available to commuters. Non-work trips to the centre of Sydney have also been studied, and show elasticities to price increase in the range of minus 0.48 to minus 1.02 (Hensher 2001).

Figure 9: Decline of car mode share with increase in cost of parking



Source: Dueker et al 1998

When parking charges apply in a residential area, the influence on car use is partly through an effect on levels of car ownership. Nobis (2003) has looked in detail at the influence of radical parking policies for the new development Vauban, on the edge of Freiburg (also featured in the section on public transport). Nobis describes Vauban as 'car-reduced', not 'car-free'. Residents can choose to own cars and can drop off and pick up at their homes, but they must park their cars in communal multi-storey car parks at the edge of the development, for which they pay a one-off purchase charge based on the construction costs and a monthly charge to cover ongoing maintenance (Melia 2006). Households without cars have access to a local car club when they require a car. So, all vehicle use in Vauban is subject to an inconvenience effect as well as a price effect. Nobis compares car ownership levels with Riesfeld, another development which is similar in terms of age, design, public transport provision and relation to the city centre, but which does not have the same car management policy. She finds that car ownership levels in Vauban are 44% lower (150 cars per thousand residents vs 270 per thousand). Nobis compares the travel habits of the car-owning and non-car householders for shopping and leisure trips, and finds that 73% of the car-owning householders' 'bulk' shopping trips are by car, compared with 6% for the non-car households. For 'daily' shopping, the proportions are 10% and zero percent. The split for leisure trips is 28% vs 2%. Commuter trips to work or education constitute most remaining travel and are dominated by cycling for both types of household. A complete modal breakdown is not given for commuter trips, but 91% of non-car householders cycle to work, compared with 61% of car-owning households, and non-car householders are 50% more

likely to own public transport travel card, so a difference in car use is implied. Overall, 16% of all trips by all types of Vauban residents are by car (according to Scheurer 2001).

The influence of parking controls on residents is also discussed in section 8 on 'smart' travel behaviour change programmes, because they provide essential underpinning for smart measures such as residential travel plans to be successful.

6.3 The masterplanning criteria for parking

- **Set parking standards as maxima (definitely *not* minima) at less than 0.5 spaces per unit:** overall levels of provision for new residential developments should be less than 0.5 parking spaces per housing unit, *including on-street parking spaces*. If access to public transport and to local facilities is not deemed sufficient to support this standard then either these services must be improved, or the development should be refused at the site in question. The implication of this standard is that developments should be designed so that at least 50% of residential units are car-free. This level of parking provision approximates to the car ownership levels in Vauban and is also comparable to car ownership levels in wards of London boroughs well served by public transport. By comparison, the guideline level of parking provision in *The London Plan* (2008, Annex 4 notes to Table A4.2) is that *'all developments in areas of good public transport accessibility and/or town centres should aim for less than 1 space per unit.'*

- **Segregate parking from homes in new residential developments:** as a general principle, only drop-off and unloading should be permissible at the residence entrance, with car parking at a suitable distance to allow provision of (a) pleasant home-zone design of street space outside residences and (b) a sufficient access distance to personal cars that there is some level of disincentive to casual use for short trips.

- **A substantial proportion of legally-binding car-free housing in all new residential developments:** some residences should be sold or rented with legally-binding conditions that the owners do not own a vehicle. This requires a link with provision of a car club, generally through one of the commercial operators of car clubs (see section 8 on Smart travel behaviour change programmes for evidence of reduced car usage amongst car club members).

- **Residents should be charged the full cost of parking provision:** a parking space should have to be purchased separately to the residence, at a price reflective of its construction cost, with an ongoing charge that is at least the cost of its maintenance.

- **Limited parking at local facilities and shops, all with a parking fee:** layout of the development should ensure that most trips to these shops and facilities can be easily done on foot or by bike. Parking charge exclusions should apply for disability permit holders. Local centres with shops and other amenities should be largely pedestrianised.

7 Restraint to car movements

7.1 The key questions

- Are restrictions on car use necessary in order to create sustainable travel patterns?
- What restraints to car movement are required to cause travel behaviour change?

7.2 The evidence

- **Are restrictions on car use necessary in order to create sustainable travel patterns?**

Considering travel times at a macro level, throughout the Netherlands, Schwanen et al (2002) concluded that people choose their mode of travel according to what is most time-efficient:

'The time that people are willing to spend on traveling to work, shops, and leisure facilities by any of the travel modes in the various residential environments seems to be an important determinant of the mode used. In cities, walking, cycling, and local public transport seem to be substituted for the car, because getting anywhere by car takes so much time.'

The European Transland project (Paulley and Pedler 2000), established to recommend best practice in integration of transport and land use planning, undertook an extensive review, of which the first two conclusions emphasise the need to make car use less attractive:

'*Land-use and transport policies are only successful with respect to criteria essential for sustainable urban transport (reduction of travel distances and travel time and reduction of share of car travel) if they make car travel less attractive (i.e. more expensive or slower).'*

'Land-use policies to increase urban density or mixed land-use without accompanying measures to make car travel more expensive or slower have only little effect as people will continue to make long trips to maximise opportunities within their travel cost and travel time budgets. However, these [land-use] policies are important in the long run as they

provide the preconditions for a less car-dependent urban way of life in the future.'

- **What restraints to car movement are required to cause travel behaviour change?**

The analysis of data from the nation-wide Dutch Time Use Study by Meurs and Haaijer (2001) allowed comparison of travel behaviour in areas characterised by high and low accessibility to cars. The factors defining low car accessibility included: at least one minute's drive to reach the nearest main road; presence of a 30 km/hr zone; traffic calming measures; pedestrian priority area (woonerf i.e. home zone). The number of car trips was over 40% lower for the area with restricted car access, in comparison to an area of high car access but with the same level of density and land use mix (calculations on the basis of their Table 6). The authors' prime conclusion is:

'reduced car mobility will be achieved when facilities for daily and other shopping and schools are located close to the home, the road network in the neighbourhood is laid out for slow traffic (by bike and on foot), and therefore is unsuitable for the car, and the accessibility of locations outside the neighbourhood (including the main road and places for shopping) discourage car use. The reduction in car use is greatest when this occurs in a densely built up area.'

The density levels in this study are not particularly intense: 30 units/ha are termed 'high density' areas; 10 units/ha are low density areas. So it is striking, particularly in comparison with the American studies cited elsewhere, that car mode share is less than 50% in a majority of the scenarios considered. Car mode share is a minority wherever car accessibility is restricted and even in the high density scenario of unrestricted car access. Car mode share only becomes a majority (approaching 70%) in the scenario with both low density and unrestricted car use.

The concept of 'filtered permeability' has been mentioned in the street layout and design section as a guiding principle to achieve relatively higher accessibility for non-car modes.

7.3 The masterplanning criteria for restraint to car movement

- **Design developments so that other modes are faster and more convenient than the car:** for local trips to reach shops, facilities, and public transport, access should be easier and faster on foot and by bike than by car. Car routes should be 'the long way round' through 'home zone' environments that necessitate very low-speed driving and giving way to pedestrians. Parking unavailability and cost should also be significant deterrents to gratuitous driving for local trips.

8 'Smart' travel behaviour change programmes

8.1 The key questions

- How much travel behaviour change is achievable through information and encouragement?
- What are the necessary conditions for residential behaviour change programmes to operate successfully?

8.2 The evidence

- **How much travel behaviour change is achievable through information and encouragement?**

Research for the Department for Transport (Cairns et al. 2004) undertook original case studies and reviewed existing data in order to compile the evidence for change in travel behaviour resulting from 'personalised travel planning'. These programmes engage with individual households to provide information, advice and targetted incentives (e.g. free tickets as an encouragement to try out public transport services). The study concluded that:

'*results so far available suggest that personalised travel planning may lead to reductions in car driver trips of 7-15% amongst targeted populations in urban areas (according to trials in Germany, Australia, USA and the UK), with rather lower reductions in car driver trips (2 – 6%) reported from a smaller number of more rural trials.'*

It is notable that these percentage changes are of comparable size to many of the travel behaviour differences ascribed to differences in urban form and transport infrastructure in the preceding sections.

Other strands of this large research project looked at school and workplace travel plans. These are programmes designed to shift car trips to sustainable modes, comprising largely information and promotion with secondary small scale infrastructure improvements. School travel plans were assessed to have reduced car trips to and from school by 8-15% on average, with a large proportion achieving over 20% reduction. Workplace travel plans were found to have achieved 15-20% reduction in car commuting trips on average. Programmes to market public transport on a route-specific and area-wide level were also analysed and found to have a significant influence on ridership levels. In general, for the case study bus services, the promotional activity appeared to deliver at least as much ridership increase as an improvement to the service did on its own. In combination, marketing coupled with service improvements delivered ridership increases of 40-60% within three years or less.

- **What are the necessary conditions for residential behaviour change programmes to operate successfully?**

The importance of moving house as a key moment for possible travel behaviour change was studied by Standbridge et al (2004) through interviews with people who had moved within the last year. They concluded that:

'Important prerequisites for breaking habits are a change to the situational context and behaviour becoming more conscious and deliberate. Residential relocation meets both of these and the qualitative research reported in this paper confirms that in many instances people are consciously considering the travel mode implications during the course of moving home.'

The implication of this is that it is important to have travel behaviour programmes in place before an estate begins to be occupied. The study also shows that significant travel decisions are made early in the process of deciding where to move. This finding means that there is a strong case for designing residential travel plans so that they interact with *potential* residents who are considering moving to the estate, implying a link with the processes of property marketing and sales (or the process of allocation of social housing). The conclusions of this qualitative research are supported by a quantitative analysis of the British Household Panel Survey (Dargay and Hanly, 2003, as cited in Barker and Connolly, 2006) that found that 45% of individuals who both moved house and changed employer also changed their mode of commuting in the same two consecutive years, compared to only 14% who neither moved house nor changed job.

Experience of workplace travel plans (*The Essential Guide to Travel Planning*, DfT 2008) has shown the importance of strategies to help people use cars less, rather than alienating people who really do require a car for certain purposes. In the workplace context this may translate to provision of a car pool to obviate the need for employees to bring their own vehicles to the workplace. The equivalent provision for residential travel plans is a car club, giving residents (or local business users) ready access to a vehicle on the basis of pay-per-hour and mileage fees. As described earlier for various European examples, car clubs are characteristic of developments that aim to achieve low car mode share. Several rapidly expanding commercial car club companies now operate in major UK cities, with 24 hour booking services and satellite-tracked cars activated upon presentation of the booked user's proximity card to the car's reader. A survey of members of UK commercial car clubs showed a 21% net reduction in car ownership amongst member households over the previous year (Carplus 2008). A survey of new joiners estimated that they had reduced their car trips by over one third (36%) and reduced their car miles by over a half (54%).

The Department for Transport guidance *Making Residential Travel Plans Work* (2005) contains parking restriction as one of its 'guiding principles' for travel plan success. This conclusion is supported by an evaluation of workplace travel plans, for which monitoring data is available (Cairns et al. 2002). This study showed that organisations that had parking restrictions, parking charges or financial incentives *not* to park, achieved 24 % average reduction in car driver mode share of trips to work, more than double the average reduction (10%) achieved by firms with no controls on parking.

Personalised travel planning and other aspects of a residential travel plan require personnel and therefore ongoing revenue funding. *Making Residential Travel Plans Work* drew upon case studies to identify a lengthy list of measures that may form part of a residential travel plan. Many of these imply personnel time. Practical experience from local authorities dealing with company travel plans seems to show that allocation of staff responsibility for a company travel plan is an important factor for success (*The Essential Guide to Travel Planning*, DfT 2008 p.10). Cairns et al. (2002) found that successful company travel plans showed a wide range of levels of expenditure and varied models for allocation of staff time, but noted that senior management support was vital. For residential travel plans this probably translates as local and regional policies that state emphatically that low car mode share is a priority.

8.3 The masterplanning criteria for smart travel behaviour change programmes

- **Residential travel plan, operative from the earliest stages of marketing a development, then ongoing:** to include both smart promotional measures and small scale infrastructural measures to back them up. Personal travel advice should be offered to all individuals moving to, *or considering moving to*, the development, with information and encouragement to use sustainable travel options, including promotional campaigns and financial incentives.

- **Ongoing finance to employ a travel plan coordinator:** for the scale of new developments envisaged in housing growth areas, full-time travel planning staff will be justified. The role may span different types of travel plan in addition to the residential travel plan (as below). Revenue funding should be sufficient to provide an operating budget for ongoing small-scale infrastructure improvements and upkeep as well as the coordinator's salary.

- **Travel plans for local schools and local employers:** all local schools and larger employers should have their own travel plan. Smaller employers should be engaged with travel planning as part of an area-wide

travel planning approach, linked to the travel plans of larger employers and to residential travel planning.

- **Car club, up and running before residents move in:** to give households the ready use of a vehicle when required without the requirement of owning one (or its cost). New developments should have allocated spaces for car club cars. These should be more prominent and more convenient than private parking spaces.

- **Restricted parking:** parking restrictions are an important determinant of the success of travel plan measures (also see section 6 on Car parking).

The Sustainable Transport Masterplanning Checklist

Location of new developments

- Not close to motorways, or high-speed dual carriageway roads
- Within walking distance of major public transport links
- Adjacent to or within urban centres rather than smaller freestanding towns

Density of development

- New developments should be built to high density levels with a minimum net density of 100 dwellings per hectare
- Developments in locations close to excellent public transport should be built to net densities above 200 dwellings per hectare

Local facilities and jobs

- Residential developments should include or be closely associated with facilities that are used on an 'every day' basis – i.e. shop selling food and fresh groceries, newsagent, open space with childrens' play area, post office and cash point, creche/ nursery and primary school, eating and drinking places, supermarket, and secondary school
- Larger residential developments should also include or be close to facilities which can capture a large proportion of trips locally – i.e. medical centre, chemist, community centre
- Residential developments should include or be close to as wide a range of shops and facilities as possible
- The local centre with shops and facilities should be within walking distance of all residences - 800m
- Local centres should be pedestrian and cycle access only, so far as possible
- Employment planned in association with the development should be able to source the required staff from within a 30 minute travel time catchment on public transport, plus walking and cycling distance around the site
- Employment planned in association with the development should include many jobs that can easily be filled from a local pool of unskilled or semi-skilled labour
- Car access to planned employment sites and local shopping centres should be more expensive, less convenient, and less rapid in comparison to access by public transport, bike or walking

Street layout and design

- Filtered permeability should be fundamental to the plan
- Low speed limits (20mph maximum) throughout the estate area
- Home zone street design for all residential streets
- A network of safe cycling and pedestrian routes
- Pedestrianised local centres with cycle access
- People-centred attractive street design
- Cycle storage at local destinations

Public transport

- Public-transport centred development, based on high quality public transport providing rapid connections to the nearest major centre of employment and major urban facilities.
- Sites which currently have poor public transport should not be developed until public transport has been improved.
- Dedicated public transport routeways for large developments
- 800m maximum distance from residences to the main public transport hub
- Direct high quality pedestrian and cycle links to public transport
- Cycle storage at transport hubs
- Minimal car parking at transport hubs

Parking

- Set parking standards as maxima (definitely *not* minima) at less than 0.5 spaces per unit i.e. at least 50% of residential units should in effect be 'car-free'
- Segregate parking from homes in new residential developments
- A high proportion of housing should be car-free and have no dedicated parking space
- Residents should be charged the full cost of parking provision
- Limited parking at local facilities and shops, all with a parking fee

Restraint to car movement

- Design developments so that other modes are faster and more convenient than the car

Smart travel behaviour change programmes

- Residential travel plan, operative during first marketing of a development, then ongoing
- Ongoing finance to employ a travel plan coordinator
- Travel plans for local schools and local employers
- Car club, up and running before residents move in
- Restricted parking

Part B

National and regional policy on new housing and sustainable transport

In the previous section we looked at the evidence base on the extent to which 'good' housing location and design can reduce car use and encourage sustainable modes.

Now, we look at the likelihood that current policy will lead to the development of housing in a form which encourages sustainable travel. We begin with an overview of the main locations at which there are plans for large numbers of new homes. This is followed by a review of policy documents which are supportive of a sustainable approach to new development, at national level and specifically in relation to the Thames Gateway. We then look at the contradictory pressures, reviewing documents from Government and regional bodies which encourage a 'business as usual' approach to new development, assuming and planning for high levels of car dependency. We examine the views of commentators from outside government on how well the current approach is likely to succeed at fostering sustainable travel patterns in new housing.

Policy documents can tell us something about the extent to which new houses will form genuinely sustainable communities, but it is sometimes difficult to distinguish a real commitment to sustainable development from 'business as usual' but with a skim of greenwash. An acid test of the commitment to sustainable development is provided by funding allocations, and so we examine these for the Thames Gateway.

The section concludes with recommendations for policy makers on reforms which would encourage the development of truly sustainable communities, with low car use and high levels of walking, cycling and public transport travel.

9 Locations for new housing

The main locations identified for housing growth are in the south of England. In theory, they fall into broadly three categories:

- Housing Growth Areas;
- New Growth Points;
- Eco-towns.

The following review summarises the scale of new housing development planned in these main locations, and also considers the scale of development envisaged for the whole of Greater London. Tables giving further detail on the number of dwellings planned in each of these areas are in an Appendix.

It is important to keep in mind that these are not the only locations where there will be substantial housing development. For example, in the Eastern Region, approximately a third of housing development proposed in the East of England Plan lies outside these targeted areas. Similarly, approximately half of the housing development proposed by the London Plan lies outside either the Thames Gateway or the London-Stansted-Cambridge-Peterborough Growth Area.

9.1 Housing Growth Areas

The origin for the concept of Housing Growth Areas lies in the 2001 *Regional Planning Guidance for the South East* (RPG9). This set out a series of principles governing new development in the region, key of which was the conclusion that it was preferable for development to be concentrated in urban areas, rather than being widely dispersed across the region. But RPG9 recognised that in addition to development focussed around existing urban areas it would probably be necessary to create new 'urban growth areas'. The Thames Gateway had already been recognised as an important location for regeneration and the provision of new housing and employment. RPG9 additionally identified Ashford, Milton Keynes (subsequently described as Milton Keynes / South Midlands) and the London-Stansted-Cambridge area (subsequently London-Stansted-Cambridge-Peterborough) as areas in which housing growth should be concentrated.

In 2003, the Government's 'Sustainable Communities Plan' (*Sustainable Communities: Building for the Future*, ODPM 2003) confirmed that there should be major housing development in these four Growth Areas, and promised a range of actions to stimulate a step change in the supply of new housing in London and the South East.

The headline figures for each of the Housing Growth Areas are as follows:

- Thames Gateway: 160,000 new dwellings by 2016;
- Milton Keynes / South Midlands: 208,500 new dwellings by 2021;
- London-Stansted-Cambridge-Peterborough: 173,300 new dwellings by 2021 in the parts of the Growth Area within Hertfordshire, Essex and Cambridgeshire, and 37,300 new dwellings by 2016 in the part of the Growth Area within London;
- Ashford: 10,400 new dwellings by 2016.

9.2 New Growth Points

The New Growth Points initiative was announced in December 2005. It involves substantial housing development in 45 towns and cities at 29 locations across the South East, East, South West, East Midlands and West Midlands. Taken together, the plans for the existing 29 New Growth Points will lead to 426,000 new homes being built by 2016.

The Government has also announced a further round of funding for an expanded New Growth Points programme which will include towns in the North of England.

9.3 Eco-towns

The proposed Eco-towns will be new settlements, separate and distinct from existing towns but well linked to them. They are intended to demonstrate the highest environmental standards, including best practice in sustainable transport. From an original 'long-list' of proposals, fifteen possible sites for Eco-towns are now being considered by the Government. However, concerns have been raised by a 'Challenge Panel' of experts appointed by the Government about whether a number of these proposed developments are likely to demonstrate best practice in terms of the future travel patterns of their residents. If all these were to go ahead (which is unlikely) they would provide 112,000 new homes.

9.4 London

In London, the recent document issued by the Mayor, *Planning for a Better London* (July 2008) sets out his intention to review the numbers and spatial allocation of housing in the London Plan, in particular in the context of work by Transport for London which suggests that there may be scope to deliver more housing in areas of East London that will be served by Crossrail and other new transport infrastructure. This document also states that in other locations 'there is a need for new transport infrastructure to support the new homes being built' and comments that 'we must not create new communities that have to be dependent upon the car.'

The current housing allocations (now subject to review) are based on the *2004 London Housing Capacity Study* (published in 2005). This reviewed the capacity of over 4,000 sites of more than 0.5 hectares across the capital, and identified 1,450 sites with some housing potential. It also examined the potential for new housing to be provided from small sites, non-self-contained units and reductions in vacant housing stock. The study concluded that there was a total capacity to provide 315,327 new dwellings during the period to 2016/17. Of these, approximately 60% would be developments on large sites of more than 0.5 hectares.

In calculating the potential housing capacity of each site, the study made an assumption about likely development density, based on the location of the site (central, urban or suburban) and its public transport accessibility level, or PTAL. For example, urban sites with good public transport (PTAL = 6 to 4) were assumed to have a viable development density of 115 dwellings per hectare, while urban sites with poor public transport (PTAL = 1 or 0) were assumed to have a development density of 40dph. The study also included a range of scenarios, some of which assumed higher or lower development densities.

Table 3 summarises the total capacity within each London sub-region. Nearly half of the capacity identified by the study was in east London. The London boroughs making the greatest overall contribution to housing capacity were Newham (35,109 dwellings), Tower Hamlets (31,160) and Greenwich (20,101), reflecting the significance of development in the Thames Gateway to overall provision of new housing in London. Other major contributions were from Barnet (19,637), Redbridge (16,237) and Southwark (16,279).

Table 3: Housing capacity in London

Sub-region	Total capacity*	Share of total
Central	62,095	20%
East	145,899	46%
North	37,184	12%
South	31,120	10%
West	39,029	12%
London total	**315,327**	**100%**

Source: *London Housing Capacity Study* (2005)

Modelling carried out by Transport for London suggests that public transport schemes for which funding is already committed will have the capacity to meet transport demand from *more* housing in the western part of the London Thames Gateway than is currently planned (Murray-Clark 2007).

10 Policy documents in support of a sustainable approach to new development

The high level ambition for a sustainable approach to the development of new housing was laid out in the Sustainable Communities Plan (*Sustainable Communities: Building for the Future*, ODPM, 2003). This was described as a *'long term programme of action for delivering sustainable communities in both urban and rural areas'* and drew a contrast between the experience of the past and a new *'wider vision of strong and sustainable communities…flowing from the Government's strong commitment to sustainable development'*. It promised that potential impacts on the environment would be addressed alongside social and economic goals.

Beyond this high level vision, more specific policies in support of a sustainable approach to new development are most commonly associated with the Government's plans for Eco-towns.

For example, the *Eco-towns Prospectus* (CLG, July 2007) describes the key features of Eco-towns, including:

- Places with a separate and distinct identity but good links to surrounding towns and cities in terms of jobs, transport and services;
- The development as a whole to achieve zero carbon (but its transport emissions will be excluded from the calculation);
- A good range of facilities within the town including a secondary school, shopping, business space and leisure.

The Prospectus states that each Eco-town should have an area-wide travel plan, high quality public transport, street design in line with the *Manual for Streets*, and traffic control measures which give priority to public transport and high occupancy vehicles. It also says that consideration should be given to the impact on roads and congestion when siting the Eco-town.

Guidance on the detail of site design in Growth Points and Eco-towns (*Building Sustainable Transport into New Developments: a menu of options for Growth Points and Eco-towns,* Department for Transport, April 2008) states that:

- Employment opportunities and other community facilities (such as schools and health centres) should where possible be provided on site;
- Plans for new roads to developments should only be considered where they are essential for improved access or the town's economic sustainability;
- Streets should be primarily designed to accommodate the needs of pedestrians, cyclists and public transport, in line with the *Manual for Streets*;
- Car dependency may be reduced through limited car parking, charging for parking, a car-free site or by limiting car access to the periphery of the development;
- Restrictions on car use should be accompanied by car clubs, on-demand public transport or a car-sharing scheme;
- Sites should have frequent, reliable, accessible public transport links to urban centres, major employment and leisure sites; and good cycle tracks, footpaths and bus services to the nearest train station;
- Developers should become engaged in initiatives to support take-up of sustainable travel options, such as marketing bus services, providing high quality information, offering personal travel planning and supporting cycling and walking initiatives such as bike/walk clubs;

- Developers should agree targets for modal share and monitor travel patterns to ensure that these are achieved.

This approach is further supported by the *Eco-towns transport worksheet* prepared by the Town and Country Planning Association for Communities and Local Government and published in March 2008. This recommends that:

- Transport measures across an Eco-town should achieve modal share for sustainable modes which is equal to or better than European best practice, with no more than 25-40% of journeys being made by private car;
- A full range of 'hard' and 'soft' measures should be used to manage mobility, using a travel planning approach applied to the whole town;
- Spending should be apportioned according to the desired modal split.

The Government's update, *Eco-towns: Living a greener future: progress report* (2008) sets out its thinking on standards for Eco-towns. These include:

- More than 50 per cent of trips originating in Eco-towns should be by foot, bicycle or public transport;
- Homes should be within 10 minutes walk of frequent public transport and neighbourhood services;
- Access to and through the development should give priority to walking, cycling and public transport.

Looking specifically at the Thames Gateway, a sustainable vision for new development is best exemplified by the *Sub-Regional Development Framework for East London,* published under The London Plan in May 2006. This states that:

'New residential communities will be centred around new and existing public transport, in many cases building out from existing well served locations. At a local level the emphasis will be on 'walk to' facilities…'

It goes on to say that:

'East London will shift from an over reliance on the car to more sustainable modes including public transport, cycling and walking. Most of the trip growth necessary due to increased population and economic activity will be made by public transport in the longer term and there will be efficient transport for freight and business. Massive investment in public transport quality and capacity, combined with appropriate measures to manage the demand for private vehicles, can help create this virtuous outcome.'

The *Sub-Regional Development Framework for East London* highlights the importance of high development densities in

order to support high quality public transport services, and the need for new public transport services to be in place in advance of development rather than afterwards. It also recognises the need for car travel demand to be managed through behavioural change measures and car parking restraint.

11 Policy documents in support of a 'business as usual' approach to new development

In parallel with the emphasis on design for sustainable transport, there is also a recurring theme in policy documents that existing transport networks will not be able to accommodate the increase in trips resulting from large new housing developments, and that large scale investment in new transport infrastructure will therefore be required. Generally, the emphasis is on multi-million pound 'grands projets' – rail, light rail and road – with limited reference to bus services (with the exception of some bus rapid transit schemes) or cycling and walking. Policy documents tend to imply that investment in public transport and roads infrastructure will be equally necessary, although, as we shall see in section 13, this is not necessarily reflected in actual funding allocations which are strongly biased towards road schemes.

This theme appears in a wide range of documents in relation to all the Housing Growth Areas and also in documents dealing with the New Growth Points. Here, we look specifically at the Thames Gateway as an example.

In *Creating Sustainable Communities: Delivering the Thames Gateway* (ODPM March 2005), the Government comments that the existing transport network in the Thames Gateway is already under strain with heavily used road and rail commuter routes and local networks that are at capacity. Although it suggests that new development will be focussed initially on areas with good existing or planned transport links, it also comments that the transport network must be improved to cope with the additional demands of new communities, and says that in some areas, such as Kent Thameside, transport constraints currently limit the capacity for growth. It says that the Community Infrastructure Fund will help tackle these constraints, providing funding for transport schemes that unlock housing growth across all four Housing Growth Areas.

An inter-regional planning statement by the Thames Gateway Regional Planning Bodies (*Growth and regeneration in the Thames Gateway*, East of England Regional Assembly, Mayor of London and South East England Regional Assembly, 2004) reflects on the same theme, stating that:

- Many movements, especially in the outer Gateway, are by car and some road improvements will be needed, but generally new road capacity would be very quickly absorbed, so that

public transport and a multi-modal approach offer the most effective means of increasing accessibility;

- Some major enhancement of strategic public transport infrastructure will be needed to release the full potential of sites and manage the movement of growing numbers of passengers;
- Sustainable development will only occur if local public transport is also enhanced so that homes and jobs can be effectively linked, more intensive development can be achieved in locations with good accessibility and fullest benefit can be gained from strategic public transport investment;
- Transport improvements are critical to regeneration and are important in reducing risk for developers;
- Investment is needed to address existing infrastructure deficits and connectivity.

The statement identifies a list of public transport improvements and road schemes which it considers are necessary. The public transport schemes include Channel Tunnel Rail Link domestic services; East London Transit; Greenwich Waterfront Transit; Kent Fastrack; Docklands Light Railway extensions; East London Line extensions; Crossrail; C2c line improvements; Thameslink 2000; and public transport improvements in the Medway area. The road projects listed include schemes to increase capacity of the M25, A2, A13 and A127; the A249 Swale Crossing; the Thames Gateway Bridge; road capacity expansion in south Essex and north Kent; the Silvertown Crossing; and a Lower Thames Crossing.

The *Thames Gateway Delivery Plan* (CLG 2007) includes a spending programme for 2008-2011 and some priorities for resources beyond 2011. It identifies a series of major transport schemes which are an investment priority because they will provide links to four 'spatial transformers', or locations which are expected to be responsible for the biggest growth in jobs in the Thames Gateway area. These include widening of the A2 in North Kent (already complete) and changes to the M25 / A2 junction (opening 2008). The Delivery Plan comments that 'Junction 30 of the M25 (the junction with the A13) is recognised as the biggest remaining constraint to development in the Thames Gateway' and commits to announcing a 'recommended approach' in autumn 2008, with major construction work probably beginning in 2013/2014. The Delivery Plan also commits to a study into options for building a further lower Thames crossing. It states that the Government will support plans for the growth of Southend Airport and an associated business park, and that it is supporting the A127 Employment Corridor in Basildon (through a £14.5 million scheme to increase road capacity). In terms of public transport, the Delivery Plan points to the expected impact of Crossrail in improving access to town centres at Abbey Wood, Custom House and

Woolwich, and to the impact of planned Docklands Light Railway extensions.

The Delivery Plan also identifies 13 smaller transport schemes (typically costing £2 million - £20 million) which will be funded via £100 million from the forthcoming round of the Community Infrastructure Fund. Of these, eight are public transport or walking/cycling schemes and five are road schemes. Cross-referencing against other data published by the Department for Transport, which is reviewed more fully in section 13, it appears that the public transport and walking/ cycling schemes tend to be of a smaller scale than the road schemes.

The Delivery Plan sets out proposals for making the Thames Gateway an 'eco-region' that will 'act as an international exemplar of sustainability'. It proposes a series of actions to achieve this, including eco-assessments of the top ten housing programmes; investment to improve energy efficiency of existing building stock; development of a regional 'Green Homes Service'; and development of a district heating system using waste heat from Barking Power Station. The proposals for an eco-region do not mention any low carbon travel behaviour change programme, which might perhaps have been expected in a list of measures focussed on behaviour change and energy efficiency.

12 How sustainable is the current approach? – views from outside government

Next, we look at the views of commentators from outside Government on the extent to which the approach to new housing development is sustainable in terms of its effect on transport and travel patterns. We begin with reports which take a national perspective, and then look at views on developments in the Thames Gateway.

The Sustainable Development Commission made the Government's Sustainable Communities programme the topic of its first thematic review. Its report *Building houses or creating communities?* (2007) concluded that there was insufficient emphasis on sustainable transport solutions. It comments that:

'there is a tendency for road-only solutions (new link roads, roundabouts or traffic lights) to be presented as part of the developer's Section 106 planning agreement….The primary focus of the Department for Transport (DfT) and the Highways Agency (HA) appears to have been to combat congestion, with developers having to consider the impacts of proposed housing growth on the road networks. Developers therefore tend to default to offering improvements for road transport flow, and are not especially encouraged to develop low

carbon transport options such as public transport, which would actually reduce car dependency.'

The Commission welcomes a recent shift in emphasis within the Highways Agency, which intends to become engaged with strategic planning 'to direct development to locations where least transport harm will be caused.'

It also welcomes the fact that a significant proportion of the Community Infrastructure Fund has been spent on public transport, but comments that the schemes being funded are in some cases too short term and unambitious in their scope.

The report raises concerns about the densities of planned developments. It argues that a 'sustainability minimum' of 50 dwellings per hectare should be achieved in order to support local services and public transport, and points out that the national average is still only 40dph, despite high densities of new build in London (112dph in 2005).

The Commission's recommendations include:

- Government to raise the minimum density in planning guidance to an expectation of 50dph wherever possible;
- Guidance for developers and local authorities to be robust about the need for more up-front partnership working and planning time to ensure sustainable transport solutions work effectively;
- The Communities Infrastructure Fund to be completely remodelled in the 2007 Comprehensive Spending Review to become a defined feasibility and facilitation fund for sustainable transport solutions, with capital funding available for low carbon transport infrastructure projects;
- All Housing Market Renewal and Growth Areas to include plans to promote more sustainable travel and to reduce car use – e.g. prioritising active travel (cycling and walking) and infrastructure in travel plans and development design, public transport provision, limiting car parking, greater density.

The House of Commons Select Committee with responsibility for housing and planning investigated the Government's Sustainable Communities plan in 2003. Its report, *Planning for sustainable housing and communities: sustainable communities in the south east,* raised several concerns about the extent to which housing and transport were likely to be integrated. The key issues it raises include:

- Concerns about the low density at which some development may take place. The report points out that the Government has issued a planning direction requiring notification of any

housing proposals below 30 dwellings per hectare, and suggests that this is a low figure to choose;

- The importance of putting new public transport in place before residents move in;
- The need for local shopping, recreation, health and community facilities to be within easy walking distance;
- The risk that certain forms of development will encourage long-distance commuting (for example amongst new communities in the London-Stansted-Cambridge-Peterborough Growth Area, who may make heavy use of the M11 for commuting), and the need for fiscal measures to discourage this;
- The need for services which facilitate local travel within towns and cities rather than encouraging long distance travel.

The House of Commons Environmental Audit Committee has also looked at the Government's housing plans. Its report *Housing: Building a Sustainable Future* (2005) comments again on housing density, pointing out that between 1997 and 2001 average housing density for new development in the South East of England was 23 dwelling per hectare. While this figure has since risen to 41dph, the Committee's view that this is a low figure remains valid.

For the Eco-towns, the Government has appointed an expert panel to scrutinise proposals. Their comments about each of the schemes are set out in *Notes and recommendations from session 1 of Eco-town challenge* (2008). Many of these are critical of the lack of innovation of the schemes, their failure to provide detail on issues such as travel behaviour change, the lack of ambition of public transport, excessive levels of car parking, and too great a reliance on road schemes.

CPRE's submission to the Government's consultation paper on Eco-towns (June 2008) raises the concern that the location of the proposed Eco-towns outside existing settlements is likely to make them car-dependent commuter towns. It comments on the 'significant credibility gap in the light of the number of schemes which are predicated on substantial increases in highway capacity'.

Llewelyn Davies and Steer Davies Gleave were commissioned by the Government to examine transport provision in the Thames Gateway. Their report, *Relationship between transport and development in the Thames Gateway* (2003), provides an interesting analysis of the importance of local transport in determining whether the travel patterns of future residents will be highly car-dependent or more sustainable. They comment that:

'securing high density sustainable developments in the Thames Gateway will require a step change in the level of commitment to and resources for

the building and procurement of ***local*** *transport systems. Without this there is no reasonable prospect of being able to achieve the quantity or quality of development to which the Thames Gateway project aspires.'*

They go on to contrast the role of local transport infrastructure and strategic transport links:

'Transport must serve a range of access requirements, but in terms of ***volume*** *of movement, the most important are local in character. So although the strategic transport links are vital in attracting and shaping the economic potential, it is the local transport provision for the Thames Gateway that will be the main determinant of how people actually travel, and the degree of sustainability that is achieved.'*

The report points to the Fastrack proposals for North Kent Thameside, where there is an explicit target for 40% of all motorised trips to be made by public transport by 2025. It goes on to suggest a series of criteria for local transport services:

- Will the capacity of the public transport system be sufficient to accommodate the expected and desired demand, consistent with the target mode split?
- Will the public transport system be of a quality that will attract users who have a car at their disposal?
- Will this quality be sufficiently self-evident to persuade property investors and developers to adopt development formats with low levels of parking and car use?
- Will other aspects of local transport provision, especially parking supply and price at employment, retail and other facilities, be consistent with the desired mode share and levels of demand?

It suggests that housing development in the Thames Gateway should be focussed on those areas with greater potential for travel demand to be met by public transport.

CPRE's review of progress in the Thames Gateway (*Focus on the Thames Gateway 2* 2007) assesses the performance of local authorities in the Thames Gateway against a range of factors, including the amount of new development with easy access to local amenities and services, and the density of new housing developments.

On access to essential services, the indicator used is the amount of new residential development within 30 minutes public transport travel of a GP, a hospital, a primary school, a secondary school, areas of employment and a major retail centre. The figures are taken from local authority annual monitoring reports for 2004/5 and 2005/6.

Data reporting on this indicator is poor, but appears to indicate that new development in the Thames Gateway outside London may have rather low levels of public transport accessibility with, for example, only 46% of new development in Rochford, Essex and 9% of new development in Castle Point, Essex achieving this minimal standard.

On residential densities, the indicator used is the proportion of new housing completed at above 50 dwellings per hectare, based on the same local authority annual monitoring reports. Here, CPRE notes an improvement compared to earlier years. Nevertheless, it remains the case that in some local authorities a significant proportion of new housing falls below this threshold: 27% in Castle Point, 39% in Gravesham, 57% in Swale, and 28% in Medway.

In its *Submission to the Greater London Authority Planning and Spatial Development Committee* (2006), Transport 2000 (now the Campaign for Better Transport) set out its key concerns about plans for housing development in the Thames Gateway. These were:

- That there are numerous road schemes in the Thames Gateway which will encourage car travel, including in London the Thames Gateway Bridge which will attract 17 million car trips per year;
- That the level of expenditure on road schemes is excessive, even in London where it might be expected that spending would be predominantly on public transport;
- That there is massive over-provision of car parking in new developments in the Thames Gateway;
- That the principle of reducing the need to travel is not being applied, with no policy to promote proximity between new housing and new jobs.

The submission argues for intensification of development around public transport hubs; policies to locate jobs and homes near to one another; action to improve access to local facilities; reduced maximum car parking standards in London and complementary standards in local authorities beyond the London boundary; and guidance to local authorities on the enforcement of parking standards when determining planning applications.

13 Assessment of allocation of transport funding

The policy review in the previous section indicates that, viewed from the standpoint of sustainable transport, official policy documents are contradictory: some promote activities that will tend to increase car use whilst others promote activities that will tend to decrease car use. So the question arises as to which of these conflicting presentations of policy is actually being given priority 'on the ground',

as indicated by allocation of funds to transport projects.

To gain an indication of the real-life situation, this section considers the split of public funding allocated to transport projects within one of the Housing Growth Areas – the Thames Gateway.

The source used in the analysis below is *Thames Gateway 2007 Transport Summary* (DfT 2007), which provides a comparatively complete overview of transport funding, covering completed projects, projects in progress and planned projects. This was cross-checked against the *Thames Gateway Delivery Plan* (CLG 2007).

The Department for Transport summary includes Highways Agency schemes, the Transport for London investment programme, schemes funded through the Local Transport Plan settlement, and £100 million of schemes which will be funded through the second round of the Community Infrastructure Fund. It is possible that there are some additional Local Transport Plan-funded projects in Kent and Essex which are not specifically identified in the DfT summary, but these are likely to be so small that they will not affect the overall analysis. Costs met by the private sector (e.g. entirely developer-funded schemes, or developer contributions) are sometimes (although not always) indicated in the DfT summary, but we have excluded them from our calculation. For schemes funded via the Private Finance Initiative, we have used the figure described by DfT as 'total investment'.

The analysis excludes two major public transport projects. Crossrail has been excluded because the only figure available is the anticipated total project cost of £16 billion and this spans many areas in addition to the Thames Gateway. The Channel Tunnel Rail Link is almost entirely excluded because, again, the £6 billion total project cost covers much more than the Thames Gateway. However, the £135 million cost of the new Ebbsfleet station on the high-speed line is disaggregated and included in the analysis. These two mega-projects dwarf the other transport expenditure in the Thames Gateway, which approaches £4 billion in total. Although it is fair to say that these mega-projects will obviate many car journeys within the Thames Gateway region, particularly some longer-distance commuter journeys, the degree to which the Thames Gateway developments achieve a mode split that is not car-dominated will depend much more on 'finer grain' transport projects which make provision for local journeys. The critique of transport provision in the Thames Gateway by Llewelyn Davies and Steer Davies Gleave (described in section 12 above) makes the point that the *local* transport context will be key in determining whether new developments lead to car-dependent travel behaviour. It is therefore informative to analyse the balance within the transport project list independently of the mega-projects, which if included without disaggregation

would dominate to such a degree that patterns at the relevant local scale would be obscured.

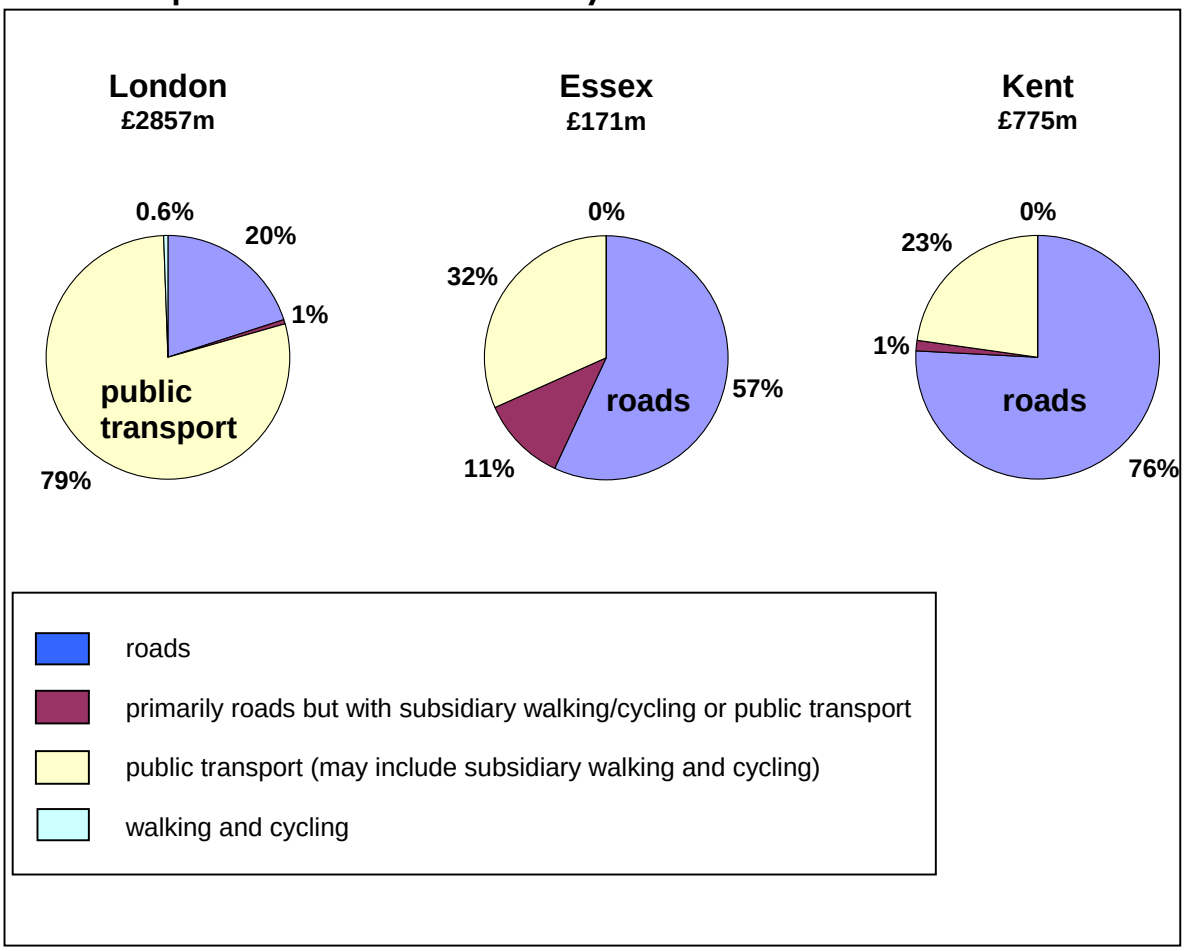
The split of transport funding across the Thames Gateway is shown graphically in Figure 10. A striking difference is apparent between the split in London where 79% of expenditure is on public transport, and the split in Kent and Essex where 76% and 57% respectively of expenditure is on road projects. The proportion of expenditure on road projects in Essex is actually closer to 68% including projects that are mainly roads but contain some elements to facilitate public transport or walking and cycling.

Where spending priorities are directing two-thirds to three-quarters of transport spending towards roads, as in Kent and Essex, quite clearly they will not deliver low levels of car mode share. It appears that in these areas the high level policy aim of creating sustainable communities is being ignored, at least as far as sustainable transport is concerned. There appears to be an assumption in Kent and Essex that travel patterns will inevitably be dominated by the car in future, and that this should be catered for in terms of increased road capacity. In London, however, the spending priorities do appear broadly commensurate with expressed policy priorities to achieve lower car use, although even here there are plans to provide for increases in road capacity and therefore in car travel.

Assessing the cost breakdown for the other Housing Growth Areas is complex because there is no published compendium of data of the form that is available for the Thames Gateway. However, so far as we are able to tell, the pattern in the Kent and Essex parts of the Thames Gateway appears to be typical of that seen elsewhere. To take just one example, the recent third round Growth Area Fund allocation (GAFIII) for Luton and South Bedfordshire (in the Milton Keynes South Midlands Housing Growth Area) has been split so that 67% of the transport expenditure will be for roads, 21% for public transport and 11% for walking and cycling.

In this particular case, it is also interesting to note that the funding is very poorly targeted to the areas where the housing growth will be concentrated. Within Luton and South Bedfordshire, the £18.85 million GAFIII funding allocated to transport will be split in the ratio 49% Luton; 45% Dunstable and Houghton Regis; 3% Leighton Linslade; and 3% Wing village. Yet in the period for which the GAFIII funding is allocated (to 2011), almost all the housing growth in this area (70%) will be in Leighton Linslade. Luton's population is actually forecast to decline. This suggests that – in this particular instance at least – a local authority is using government monies to fund its general (roads-oriented) transport priorities, and not using that money for the purpose for which it was intended.

Figure 10: Funding split between roads, public transport, walking and cycling in different parts of the Thames Gateway



14 Recommendations for policy change

In this concluding section, we examine how the current approach to developing 'sustainable communities' could be improved at national level and within the Thames Gateway.

We begin with recommendations for a new approach which would involve targets to reduce the car dependency of new developments, based on a model developed in Northamptonshire. We then identify three key areas in which we recommend that there should be changes to national policy, and to plans for the Thames Gateway: in relation to location of development; minimum densities; and the balance of funding between road schemes and public transport.

14.1 Targets for modal shift

We recommend that there should be a high-level aim for new housing to be, on average, significantly *less* car dependent than current housing stock. This aim should apply both nationally and at the level of regions, sub-regions and counties.

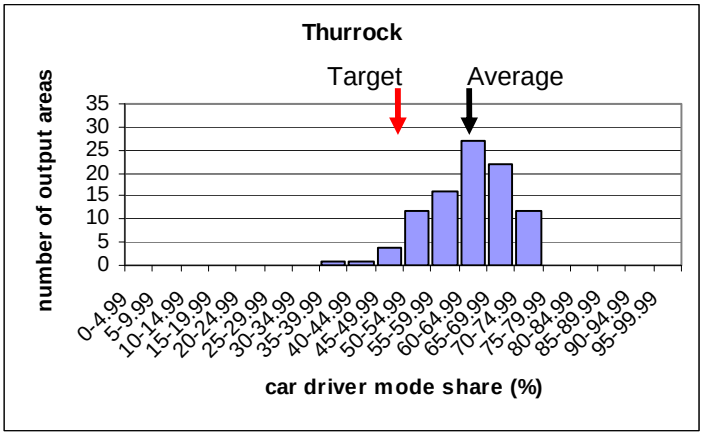
One way of putting such an aim into practice is to set mode shift targets for new developments. This approach is being pioneered by Northamptonshire County Council. Their *Transport Strategy for Growth* (2007) includes a modal shift strategy which requires new developments to achieve a level of car use for the journey to work which is 20% less than in the surrounding area (adjoining wards). The target will be measured relative to a baseline of car driver mode share for the journey to work from the national census. The intention is that all new developments will be required to achieve the target within a defined period from first occupation, and that progress will be monitored and enforced by the council. In order to achieve the target, it will be necessary for sustainable travel initiatives to be designed in from the beginning.

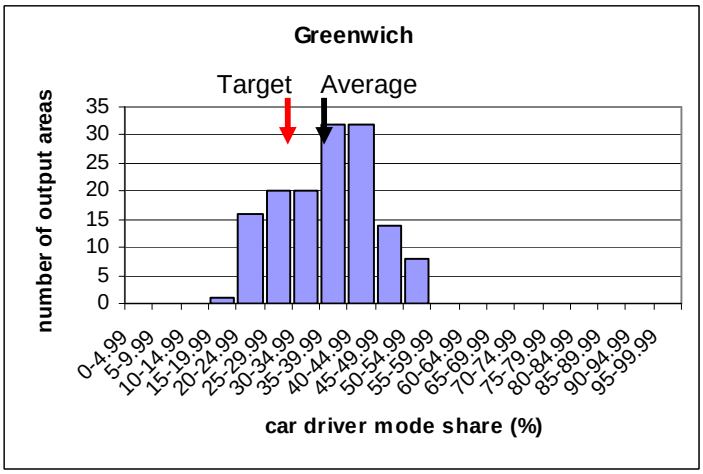
A review of the proposed '20% less car use' target by Transport for Quality of Life for Northamptonshire County Council (2007) concluded that it was challenging but achievable, and that it would typically result in new housing developments which had car driver mode shares equal to the current 'best in ward'. Achievement of the target would require new housing to be designed in a way which is distinctively different from current suburban / urban-edge developments, with new development sited in suitable locations; with low car parking standards and street designs which encourage walking and cycling; with frequent, high quality public transport services into the nearest town centre; and with an intensive programme of 'smart' measures such as

personalised travel information to new residents.

This target might most logically be applied at the level of district or unitary councils. Figure 11 illustrates how it might be applied in two unitary authorities in the Thames Gateway, Thurrock and Greenwich.

Figure 11: Car driver mode share for travel to work in two Thames Gateway authorities





The graphs show variation in car driver mode share for the journey to work for 'output areas' within each local authority. An output area is a group of about 125 geographically adjacent households, with a population which tends to be fairly homogeneous. Within each output area there will typically be about 100-200 residents who are in work.

In Thurrock there is a range in car driver mode share for the journey to work, from a low of 35-40% in one output area to a high of 70-75% in 12 output areas. The average (mean) is 62%, shown by the black arrow. A '20% less car use' target would be equivalent to 49% car driver mode share, shown by the red arrow.

In Greenwich, car driver mode share ranges from 15-20% in one output area to 50-55% in eight output areas. The average is 36% (black arrow) and a '20% less car use' target would be 29% (red arrow).

Within each local authority area, there is a significant variation in car driver mode share, such that a target of '20% less car use' lies at the lower end but well within the range of existing car mode share figures. For example, in Thurrock there are five output areas which already have a car mode share of less than the proposed target; and in Greenwich there are 31 output areas with a car mode share less than the proposed target. Thus, the effect of the target – if achieved – would be to ensure that any new development was equivalent to the existing 'best in borough'. This seems a reasonable demand to make of a developer.

It is worth noting that the '20% less car use' target is less challenging in areas

with lower existing car use, which is perhaps counterintuitive. So, in Greenwich, one in five output areas already have a car driver mode share which is lower (better) than the target, whereas in Thurrock only about one in twenty output areas are better than the target. This suggests that it would be relatively easier for a development to achieve the target in an area which already had low car use. In practice, this would result in inner urban areas with low car mode shares being more attractive development sites than urban edge or rural locations – in itself a desirable result.

In addition to a '20% less car use' target, it might also be necessary to adopt a threshold, such that no development would receive planning permission unless it could demonstrate that expected car driver mode share would be under 50%. This would act as further discouragement to housing development in highly unsuitable locations where existing car mode share was very high.

One weakness of the approach outlined above is that it focuses on commuter trips, rather than looking at all journey purposes. The reason for this is pragmatic, in that baseline data on commute modal split is available for all areas from the National Census, whereas baseline data on modal split for all journey purposes may not be available in all local authorities. There is a risk that a target framed in terms of commuter trips would be reached through measures which reduced car use for commuting while having little effect on car use for other trips (e.g. by building parkway stations and improving peak hour public transport rather than investing in better bus services throughout the day). In areas where full travel survey data were available, it would be possible to set a target with reference to this rather than with reference to national census data on trips to work.

It is also worth noting that the Government has already proposed a target for the Eco-towns that more than 50% of trips should be by sustainable modes (foot, bicycle or public transport). The approach adopted in Northamptonshire represents an extension of the Eco-towns approach to other areas, but with some flexibility to allow for local circumstances.

14.2 Other priorities for national policy change

14.2.1 Only permit Eco-towns in sustainable locations

The evidence presented in Part A shows that new housing must be located within walking distance of major public transport links, and at some distance from motorways and high-speed dual carriageways, in order to avoid creating the conditions for high car dependency.

Nationally, this suggests that a number of the proposed sites for Eco-towns are unsuitable and unlikely to deliver the Government's aim of at least 50% of trips being made by sustainable modes, because they are located too close to motorways or high speed roads. The most obvious examples are:

- Weston Otmoor, Oxfordshire (site adjoins the M40);
- Hanley Grange, Cambridgeshire (adjacent to the A11);
- Elsenham, Essex (near M11);
- Marston Vale, Bedfordshire (adjacent to A421 which is intended to be dualled);
- Rossington, Yorkshire and Humberside (near A1(M) and M18, and with an associated proposal to build a new road, the Finningley and Rossington Route Regeneration Scheme, FARRS).

These Eco-town proposals – and possibly others which suffer from similar locational disadvantages – should not be taken forward.

14.2.2 Set a higher national indicative minimum density

Planning Policy Statement 3, Housing sets a national indicative minimum density of 30 dwellings per hectare (net) as a guide to local policy development and decision-making. It encourages local planning authorities to set out a range of densities across their area rather than one broad density range. This guidance (and the density direction which preceded it) has had a positive effect in increasing average densities of new-build housing. Average densities of new dwellings in England have increased from 25dph in 2001 to 41dph in 2006 (*Land Use Change in England to 2006,* CLG 2007). However, after a fairly rapid rise, the increase in average densities of new dwellings now appears to have levelled off at about 40dph.

As both the Sustainable Development Commission and the House of Commons Select Committee on Housing, Planning, Local Government and the Regions have pointed out, 30dph is a very low figure to choose for a minimum indicative density. New housing built at this density will be difficult to serve by public transport and will have rather poor access to local everyday facilities, and is hence likely to be heavily car-dependent. The Sustainable Development Commission recommended the introduction of a 'sustainability minimum' of 50dph. However, from a sustainable transport perspective, the evidence presented in this report demonstrates that we should be building new housing at densities of at least 100dph.

This would represent a significant shift, implying that new housing should generally be of a built form similar to Victorian or Georgian terraces or urban villages, with an end to building in the style of suburban semis or 'executive homes' (see, for example, *Better*

Neighbourhoods, Making Higher Densities Work CABE 2005 for typical densities of different types of residential built form). If a national indicative minimum of 100dph were introduced, as we recommend, it should be accompanied by guidance on the quality of street design, public transport provision and parking standards to avoid new housing being built at high densities but without the design and service provision to make it successful.

It is fairly standard planning practice to allow lower development densities in areas of existing low density. This is a misguided approach which perpetuates existing problems of car-dependency. We recommend that a national indicative minimum density of 100dph should be applied to significant sites even in completely non-urban settings, in order to enable the provision of sustainable transport options and to encourage the development of a range of local facilities. It is often forgotten that the history of small towns and villages is that until the last century they were built to high densities and consequently supported local facilities and journeys on foot and by bike.

14.2.3 Re-balance funding between public transport and road schemes

The Government's progress report on the Eco-towns (*Eco-towns: Living a greener future: progress report* 2008) suggests a target that more than 50% of trips originating in eco-towns should be by foot, bicycle or public transport. The *Eco-towns Transport Worksheet* (CLG / TCPA 2008) suggests that spending should be apportioned according to the desired modal split.

Taking these two statements together, it logically follows that at least 50% of funding for transport measures in the Eco-towns should be allocated to public transport, walking and cycling.

We suggest that this principle should be adopted for the Housing Growth Areas and New Growth Points as well as the Eco-towns. In some areas, the historic over-emphasis of investment on road-building means that it would be appropriate to spend a much higher proportion of total investment on sustainable modes.

We also believe that the allocations of GAFIII and Community Infrastructure Fund monies should be reviewed to assess how well they are being targeted at the areas where housing is planned. Evidence from the Milton Keynes South Midlands Growth Area (outlined in section 13) suggests that these funds may be being used to fund roads schemes which have no direct relevance to the areas where there will be housing growth, rather than transport schemes which would facilitate sustainable travel in the specific locations where there will be new housing.

14.3 Policy change within the Thames Gateway

14.3.1 Prioritise most sustainable locations for development

The London Plan and its *Supplementary Planning Guidance: Housing* (2005) directly link development density to the proximity and frequency of public transport, with high recommended densities in areas with a public transport accessibility level (PTAL) of 4-6, and lower densities in areas with a lower PTAL.

This approach should be strengthened so that development in the Thames Gateway *only* takes place in locations which already have a PTAL of 4-6, or locations where new investment in public transport services and infrastructure will bring the PTAL up to 4-6 before housing is occupied. This will require public transport accessibility mapping for the whole of the Thames Gateway outside London.

This new approach is likely to mean much smaller numbers of new homes in the Kent and Essex parts of the Thames Gateway, most probably confined to town centre sites and a few sites where it is possible to provide very high quality public transport services.

It is likely to mean *more* housing development in the London part of the Thames Gateway, focussed in areas with the best public transport (i.e. the highest public transport accessibility level, PTAL), and areas where substantial improvements to public transport are planned or possible. Based on evidence assembled by Transport for London (Murray-Clark 2007), there should be more development in the western part of the London Thames Gateway, where intended public transport improvements have the capacity to cater for more housing than currently planned.

Sites which currently have poor public transport should not be developed until public transport has been improved.

14.3.2 Build to high densities in sustainable locations

In the areas with good public transport where development is to be focussed, densities should be at least 100 dwellings per hectare. Areas with poor public transport which are considered unsuitable for development at this density should remain undeveloped unless and until public transport can be improved.

It is worth noting that average net densities for new development in inner London boroughs almost all exceed 100dph (with figures for each borough in the range 92-300dph in the period 2003-

2006). Average densities of new housing in outer London boroughs are currently in the range 42-107dph (2003-2006 data), up substantially from 29-56dph in 1999-2002. By contrast, density of new development in districts in the Kent and Essex parts of the Thames Gateway are still woefully low, typically lying in the range of 28-44dph (with the exception of Thurrock and Southend-on-Sea which have slightly higher densities) (*Land Use Change in England*, CLG 2007).

In areas with excellent public transport links (e.g. within one mile of light rail or tube station, or within one mile of a rail station with frequent services to central London), net densities of new housing developments should be at least 200dph in order to maximise the number of households able to enjoy excellent public transport connections. This figure is in line with densities recommended in the London Plan for central and urban locations with a high PTAL.

14.3.3 Tighten parking provision in new developments

The strictest parking standard for residential developments in *The London Plan* (2008, Annex 4 notes to Table A4.2) is that *'all developments in areas of good public transport accessibility and/or town centres should aim for less than 1 space per unit.'* For other locations the standard permits even more parking space. This is a notably lax standard that seems to reveal an underlying belief that all new developments will have high levels of car use, despite the ambitions for sustainable transport expressed elsewhere in the plan. The evidence presented in this report shows that new developments in continental Europe observe much tighter standards, and, moreover, that the level of parking expressed in the London Plan would represent a significant deterioration even from the existing car ownership levels in wards of London boroughs well served by public transport – i.e. the sorts of wards which new development should be concentrated in. Parking provision has a fundamental influence on travel habits and standards should be set at 0.5 parking spaces per household or less, with substantial proportions of new developments designed as car-free. As already noted, development design and location relative to public transport and local facilities should anyway be such that non-car travel is the *most* convenient mode.

14.3.4 Re-balance funding between public transport and road schemes

London is currently the only part of the Thames Gateway where public transport accounts for more than half of all transport investment. In other parts of the Thames Gateway, spending is heavily biased towards road schemes. We recommend that there should be a review of public transport and road schemes in the Kent and Essex parts of the Thames Gateway to identify a series of ambitious new public transport schemes which would unlock the potential for sites to be developed to high densities. The overall aim should be a re-balancing of transport

expenditure so that at least 50% (and in the short term, 75%) is for public transport, walking and cycling.

Where new public transport is planned to serve housing developments, it should have sufficient capacity to meet the desired public transport modal split.

The research by Llewelyn Davies and Steer Davies Gleave (*Relationship between transport and development in the Thames Gateway,* 2003) highlights the importance of the local transport system, as opposed to 'strategic' (i.e. long-distance) transport links. In planning for new development in the Thames Gateway, a high priority and a high proportion of overall public transport funding should be given to the local transport links – cycle paths, walking links, bus rapid transit, conventional bus and DLR.

Part A of this report suggested that where access to local facilities by car is easy, with plentiful parking at the destination, levels of car use are higher. It also showed that car use is higher in locations where there is easy access to high speed motorways or dual carriageways. Current plans for the Thames Gateway involve a number of proposals for major road schemes, at various stages of development. Amongst these, the most problematic are the Thames Gateway Bridge, plans for a Lower Thames Crossing, and possible plans for Junction 30 of the M25. To avoid increasing overall road capacity and creating the conditions for development of car-dependent sites, these and other road schemes should be cancelled or reconsidered.

15 Conclusion

There is an understandable desire to build large numbers of new homes in the next decade in order to reduce the severe pressure for housing in the south of England. However, at policy level this has led to a tendency to emphasise volume of construction, at the expense of environmental quality.

If the new homes in the Growth Areas, Growth Points and Eco-towns are to be part of truly 'sustainable communities', they must be designed to facilitate low car use. This requires that major new developments be in locations which are easy to serve by good public transport, rather than in locations where a car is the quickest way to travel. Housing densities, street design and land use mix must be such as to make it easy and attractive to walk and cycle to a wide range of every day local facilities, and such as to support frequent, high quality public transport to town centres and other key destinations. There should be less emphasis on building 'strategic' transport links (which are often not at all strategic, but simply facilitate more short car trips), and more emphasis on providing high quality

local transport links for everyday travel by sustainable means. There should be greater emphasis on car-free neighbourhoods and more developments with shared car parking at a distance from houses, so that residents must walk to reach it. These developments should be coupled with car clubs so that residents do not need to own a car in order to have the occasional use of one.

There should also be a reversal of the current funding pattern, in which – outside London – around three-quarters of transport investment is for new road construction and only a quarter is for sustainable modes.

We need a completely new paradigm for housing in the age of climate change, and this must address the crucial issue of how we can reduce the amounted of fossil fuel used in our travel as well as measures to increase efficiency and reduce household energy use for heating, cooking and lighting. Rather than encouraging a built form which is more *car-dependent* than our average housing stock, we should be developing a new, high-quality form of housing which is more *sustainable* in the travel patterns of its residents.

Appendix: Number of dwellings planned in each area

Thames Gateway

In the Thames Gateway**,** the Government is aiming for 160,000 new homes to be built by 2016. Most of these (nearly 110,000) will be concentrated in what the Thames Gateway Delivery Plan identifies as the 'ten locations where new homes are most urgently needed'. Funding allocations will give priority to these areas. The 'top ten' locations, and the amount of housing planned for each, are summarised in Table 4.

Table 4: Housing units to be developed in ten main locations in Thames Gateway in period to 2016

LONDON THAMES GATEWAY	**72,100**
Lower Lea Valley and Stratford	23,400
Royal Docks including Canning Town	18,900
Greenwich Peninsula	13,200
Barking (Riverside and Town Centre)	10,500
Woolwich	6,100
KENT THAMES GATEWAY	**17,500**
Medway	8,100
Kent Thameside Waterfront	5,700
Ebbsfleet Valley	3,700
ESSEX THAMES GATEWAY	**18,900**
Thurrock	12,200
Basildon	6,700

Source: Thames Gateway Delivery Plan, HM Government (2007). Note that these figures do not necessarily tally with borough-based figures for the London part of the Thames Gateway as set out in the London Plan, and only include 'top ten' locations where the Government intends investment to be targeted.

Milton Keynes / South Midlands

In Milton Keynes / South Midlands, the Sub-Regional Strategy published in 2005 identifies locations for just over 200,000 new homes in the period to 2021, and just over 300,000 in the period to 2031. The biggest increases in housing are planned for Milton Keynes itself and Northampton. Table 5 summarises the main locations and the amount of new housing envisaged in each. Some of these figures are firmer than others. For example, in Aylesbury housing locations to the north of the town (at Berryfields and Weedon Hill) are already identified. In other cases the sub-regional strategy indicates a range of possible 'search areas' within which new housing might be located: for example 'to the east, west and south of Kettering'.

Table 5: Housing units to be developed in Milton Keynes / South Midlands

Location	Additional dwellings in period 2001-2021	Possible further dwellings in period 2021-2031 (subject to revision)
Milton Keynes	44,900	23,700
Northampton	30,000	17,500
Luton / Dunstable / Houghton Regis	26,300	15,400
Bedford	19,500	10,000
Aylesbury	15,000	
Aylesbury Vale	3,300*	
Corby	16,800	28,000
Kettering	13,100	
Wellingborough	12,800	
Daventry	10,800	
East Northants	9,400	
South Northants	6,600	
TOTAL	**208,500**	**94,600**

* in period 2001-2016
Source: Milton Keynes and South Midlands Sub-Regional Strategy (2005)
Note: The Draft South East Plan (2006) re-bases the housing figures for those parts of MKSM in the South East region to 2006-2016, 2016-2021 and 2021-2026. These figures have not been amended here for the sake of consistency with data from other regions within MKSM.

London-Stansted-Cambridge-Peterborough

The London-Stansted-Cambridge-Peterborough Housing Growth Area includes parts of Cambridgeshire, Hertfordshire, Essex and north-east London boroughs. In the three counties, the latest figures for number of housing units are set out in the East of England Plan (the regional spatial strategy for the East of England), published in 2008. For London, the latest figures are set out in an update to the London Plan, published in 2006. The number of units in each location is set out in Table 6.

Ashford

Ashford is the smallest of the Growth Areas. It was designated as a Growth Area because of the expectation that the introduction of high speed domestic rail services in 2009 would stimulate economic activity and housing demand. Table 7 sets out the proposed scale of housing development in Ashford, based on figures from the Draft South East Plan (2006).

Table 6: Housing units to be developed in London-Stansted-Cambridge-Peterborough

Location	Additional dwellings in period 2001-2021	Targets for additional homes 2007/08 – 2016/17
CAMBRIDGESHIRE	**98,300**	
Cambridge	19,000	
East Cambridgeshire	8,600	
Fenland	11,000	
Huntingdonshire	11,200	
South Cambridgeshire	23,500	
Peterborough	25,000	
ESSEX	**35,200**	
Braintree	7,700	
Epping Forest	3,500	
Harlow	16,000	
Uttlesford	8,000	
HERTFORDSHIRE	**39,800**	
Broxbourne	5,600	
East Hertfordshire	12,000	
North Hertfordshire	6,200	
Stevenage	16,000	
LONDON BOROUGHS		**37,300**
Enfield		3,950
Haringey		6,800
Hackney		10,850
Redbridge		9,050
Waltham Forest		6,650
TOTAL	**173,300**	**37,300**

Note: London-Stansted-Cambridge-Peterborough is defined by the Government as including: the London Boroughs of Enfield, Haringey, Hackney, Redbridge and Waltham Forest; Hertfordshire districts: Broxbourne, East Hertfordshire, North Hertfordshire, Stevenage; Essex districts: Braintree, Epping Forest, Harlow and Uttlesford; all Cambridgeshire districts: Cambridge, East Cambridgeshire, Fenland, Huntingdonshire, South Cambridgeshire; and Peterborough.
http://www.communities.gov.uk/housing/housingsupply/growthareas/growthareasby/londonstanstedcambridge/whatishappening/, accessed 21 July 2008

Table 7: Housing units to be developed in Ashford

	2006-2016	2016-2026
Ashford	10,400	12,000

New Growth Points

Table 8 summarises the locations identified under the New Growth Points initiative, and the scale of proposed development at each location.

Table 8: Housing units to be developed at the New Growth Points

Growth point	Total new housing units 2006-2016
EAST MIDLANDS	**110,300**
3 Cities and 3 Counties	81,500 (including 9,800 in Derby; 18,400 in Nottingham and 17,800 in Leicester)
Lincoln (incl North Kesteven and West Lindsey)	16,500 (of which 9,500 will be in Lincoln)
Grantham (incl South Kesteven)	6,300 (of which 2,750 will be in Grantham)
Newark on Trent (incl Sherwood)	6,000 (of which 5,000 will be in Newark)
EAST OF ENGLAND	**46,400**
Norwich	15,950
Haven Gateway (area of 1200 sq. km of northeast Essex and southeast Suffolk)	22,850
Thetford (Breckland District Council)	7,600 (of which 3,000 will be in Thetford)
SOUTH EAST	**77,800**
Reading	7,000
Oxford	5,692
Didcot	5,000
Basingstoke and Deane	9,650
Maidstone	5,040
Reigate and Banstead	5,000 (of which 2,600 will be in two new neighbourhoods in Horley)
Partnership for Urban South Hampshire	40,425
SOUTH WEST	**109,050**
West of England Partnership (including Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire)	46,250
Swindon	17,700
Exeter and East Devon	9,250 (of which 3,500 will be in new community at Cranbrook)
Plymouth	12,250 (of which 1,000 at new neighbourhood of Millbay; 4,000 at new community of Sherford; 1,500 at new neighbourhood of Plymstock Quarry)
Truro	5,000
Poole	7,000 (of which 4,000 in central area)
Torbay	5,000
Taunton	6,600

WEST MIDLANDS	**82,800**
Birmingham and Solihull	40,000
Coventry	9,000
Telford	13,000
East Staffordshire – Burton-upon-Trent	5,000
Hereford	8,500 (in Herefordshire)
Shrewsbury and Atcham	3,500
Worcester	3,800 (in Worcestershire)
TOTAL	**426,350**

Source: www.communities.gov.uk/housing/housingsupply/growthareas/newgrowthpoints/newgrowthpoints/ accessed 31 July 2008-08

Eco-towns

Table 9 summarises the locations for the proposed Eco-towns, and the number of new homes at each location.

Table 9: Housing units in the possible Eco-towns

Eco-towns	Location	Number of units
Pennbury, Leicestershire	4 miles southeast of Leicester	12-15,000
Manby and Strubby, Lincolnshire	2 sites with large element of brownfield land including former RAF base	5,000
Curborough, Staffordshire	Site of Fradley airfield, 10 miles from Burton	5,000
Middle Quinton, Warwickshire	Site of Royal Engineers depot, 6 miles south west of Stratford upon Avon	6,000
Bordon Whitehill, Hampshire	MoD site	5-8,000
Weston Otmoor, Oxfordshire	Site adjoining M40 and Oxford-Bicester railway, 3 miles south west of Bicester	10-15,000
Ford, West Sussex	Site including brownfield land and former airfield	5,000
Imerys China Clay Community, Cornwall	Former china clay workings / industrial land	5,000
Rossington, South Yorkshire	Former colliery village three miles south of Doncaster	Up to 15,000
Coltishall, Norfolk	Former airfield, 8 miles north of Norwich	5,000
Hanley Grange, Cambridgeshire	Land adjacent to A11	8,000
Marston Vale and New Marston, Bedfordshire	Several sites along rail line to Stewartby and Millbrook	Up to 15,400
Elsenham, Essex	Northeast of Elsenham village, near M11 and London-Cambridge rail line	5,000
Rushcliffe, Nottinghamshire	Site not yet identified	

Leeds city region	Site not yet identified	

Source: CLG website, accessed 30 July 2008

London

Updated borough-by-borough housing targets based on the figures in the *London Housing Capacity Survey* were published in 2006, as a revision to the *London Plan*, and carried forward to the 2008 version of the *London Plan*. These targets are reproduced in Table 10.

Table 10: Targets for additional homes in London 2007/08 to 2016/17

North sub-region	**66,500**	**South West sub-region**	**43,150**
Barnet	20,550	Croydon	11,000
Camden	5,950	Kingston upon Thames	3,850
Enfield	3,950	Lambeth	11,000
Hackney	10,850	Merton	3,700
Haringey	6,800	Richmond upon Thames	2,700
Islington	11,600	Sutton	3,450
City of Westminster	6,800	Wandsworth	7,450
North East sub-region	**100,450**	**West sub-region**	**40,450**
Barking and Dagenham	11,900	Brent	11,200
Corporation of London	900	Ealing	9,150
Havering	5,350	Hammersmith and Fulham	4,500
Newham	35,100	Harrow	4,000
Redbridge	9,050	Hillingdon	3,650
Tower Hamlets	31,500	Hounslow	4,450
Waltham Forest	6,650	Kensington and Chelsea	3,500
South East sub-region	**54,450**	**London total**	**305,000**
Bexley	3,450		
Bromley	4,850		
Greenwich	20,100		
Lewisham	9,750		
Southwark	16,300		

Source: The London Plan 2008

Looking specifically at the Thames Gateway, the London Development Agency has assembled a detailed database of housing sites (www.lda.gov.uk/tghousingsites). This covers 150 sites in five categories of scheme 'on site' (that is, under construction); 'planning consent granted'; 'in planning' (i.e. planning application lodged); 'pre-planning stage'; and 'site identified'. Across all 150 sites, a total of just under 120,000 units would be provided. Individual sites range in size from under 50 homes to 5000 homes, with two sites which would accommodate more than 10,000 homes. While not completely up to date, the database does

provide a useful overview of the main development sites. The fourteen largest sites, which together account for almost half of the total number of homes, are summarised in Table 11.

Table 11: Largest sites for housing development in London Thames Gateway

Site name	Number of units	Location	Scheme status	Key issues / features
Barking Riverside	10,700	*London Riverside*, LB Barking & Dagenham	4	On site of old power station between the Royal Docks and Ford's old Dagenham plant. LB Barking & Dagenham is working with English Partnerships and Bellway to draw up a master plan for the whole of the site. The master plan should take into account the need to extend DLR line from Beckton to Dagenham Dock. Planning permission granted in November 2006 and first homes could be delivered in 2008
MDL Site	10,010	*Greenwich Peninsula*, LB Greenwich	4	Planning consent and s106 negotiations complete. MDL, working in partnership with English Partnerships, is leading the regeneration of the Greenwich Peninsula. On completion it will provide a riverside community of 10,000 homes, offices, shops, schools, community facilities and a park. Bellway Homes has been signed to deliver the first housing development at the 80ha scheme, comprising 229 riverside apartments on the southern part of the site. A mix of private for sale and affordable apartments is planned, including two-storey duplexes targeting families. Bellway anticipates starting on site in 2007 with residents moving in during 2009. The rest of the homes are scheduled to be delivered by 2025
Silvertown Quay	4,930	*Royals,* LB Newham	4	Silvertown Quays is a large strategic development owned by The London Development Agency, which is working with development partner Silvertown Quays Limited. The scheme will provide 5,000 homes - including social rent and affordable housing - plus 180,000 sq ft of leisure facilities; 130,000 sq ft of restaurants and shops; 165,000 sq ft of offices and flexible workspace; 85,000 sq ft of community facilities and an 85,000 sq ft hotel. The 155,000 sq ft aquatic visitor centre – Biota! - will be Europe's largest aquarium and forms the centrepiece of the scheme's plans, creating a town centre for the Royal Docks. Planning permission was granted in November 2005.
South Dagenham (West 8 Site)	4,100	*London Riverside,* LB Barking & Dagenham	2	This is primarily a residential led development of around 7,350 homes (3,250 on the Western Site and 4,100 on the Eastern). The Western site has been sold to Axa to take forward for development and they have proposed a residential scheme with some mixed use development. The eastern side is planned to be more residential. This area suffers from low transport accessibility and there are a number of proposed transport infrastructure projects that are key to unlocking this area for development. Construction is expected to start in 2009.
South Dagenham (Axa Site)	3,250			
Stratford City Zones 2-5	4,077	*Lower Lea Valley,* LB Newham	3	Westfield has lodged its masterplan and environmental strategies for the site with government body the Olympic Delivery Authority. The masterplan comprises 13.5m sq ft of retail, leisure and entertainment facilities, offices and hotels. There will also be 5,312 new homes, of which 3,000 will be used initially for the Olympic Village community facilities, and public spaces. In the first phase of the development, Westfield plans to develop a 1.5m sq ft shopping centre anchored by a 240,000 sq ft John Lewis department store, a

				32,000 sq ft Waitrose and 1,040 homes. Westfield and LCR are in the process of choosing either a Lend Lease-led consortium or Barratt Homes and Bouygues as developer of the remaining six zones, which will include 4,500 homes, up to 5m sq ft of offices and almost 400,000 sq ft of leisure. Its plans for the "Town Centre District" or zone one will link two major rail interchanges: the new International Station on High Speed 1 and Stratford Regional Station.
Convoys Wharf	3,600	*Deptford and Lewisham,* LB Lewisham	4	Convoy's Wharf is a 16.6 ha site just to the north of Deptford. The revised application for the comprehensive redevelopment of Convoys Wharf to provide a mixed-use scheme of up to 447,045 m sq comprises: 3,514 units residential, up to 72,730 sq m employment space including waste recycling and processing facility, boat repair yard, river bus facility, wharf with associated vessel moorings, up to 6,945 sq m retail, up to 3,370 sq m restaurants/bars/cultural/community, up to 2,700 sq m leisure. Application approved by LB Lewisham in May 2005. Sent to Mayor and ODPM.
Gascoigne Estate	3,500	*London Riverside,* LB Barking & Dagenham	2	Site excluded from LBBD development framework as would require special funding and delivery arrangement. Large, social housing estate, key site for area as link between town centre & riverside.
Greenwich Millenium Village	2,950	*Greenwich Peninsula,* LB Greenwich	5	Greenwich Millennium Village is located at the southern end of English Partnerships' 121 ha (300 acre) Greenwich Peninsula site.1a,1b,2a & 2b all completed. The Village is being developed by Greenwich Millennium Village Ltd (GMVL), a joint venture between Countryside Properties and Taylor Woodrow. Currently over 800 homes in the Village are occupied and the overall project is due for completion in 2012. Stages 3,4,5 granted permission by LB Greenwich subject to referral to Mayor.
West Ham Masterplan	2,766	*Lower Lea Valley,* LB Newham	2	West Ham is identified in the Lower Lea Valley OAPF as having the capacity to support relatively high density residential mixed use development, building on its excellent transport links. The Parcelforce site was acquired by the LDA in November 2004. The Agency is keen to progress the development of this site and is currently working with other key stakeholders with a view to preparing a masterplan for the site by spring 2007. The LLV OAPF identifies the potential for 2,766 homes on this site. An alternative use for part of the site would be the relocation of businesses activities from the Olympic zone, however in this instance it is likely that two-thirds would still be retained for residential and district centre use.
Minoco Wharf	2,572	*Lower Lea Valley,* LB Newham	3	The site occupies an area of 15.96 hectares and is bounded by North Woolwich Road and the DLR extension to the north, the residential development of Barrier Point to the east, existing employment premises to the west and the River Thames to the south. The scheme will provide a total development floorspace of 288,000 gross sq m (gross external area) including between 2,572 and 3,360 residential units at densities of between 251 and 328 dwellings per hectare (over 10.23 hectares) and B1 office, retail A1- A5, and D1 community uses. Application submitted July 2006.

The Warren	2,500	*Woolwich, Thamesmead, Belvedere and Erith,* LB Greenwich	4	This is Phase 2 of the Royal Arsenal development and will see the site connect with Woolwich, doubling the size of the town centre. It will see an additional 2047 homes, a ten-screen cinema and hotel, retail spaces, offices, bars and restaurants. Planning permission granted Jan 2006.
Delivery Zone 6 and 10 Clays Lane Village	2,197	*Lower Lea Valley,* LB Newham	2	The Olympic Development Authority (ODA) has submitted one of the biggest planning applications in European history. The 15-volume 10,000-page application, which sets out plans for creating new venues, roads and parks in east London, also includes details of how the facilities will be changed for use after the games. The document, received by Newham Council, contains plans for the 'Big 4' - the Olympic Stadium, Aquatics Centre, the Village and the International Broadcast Centre and Main Press Centre. Westfield lodged its masterplan and environmental strategies for Stratford City, the 180-acre Olympic Village site in east London, with the ODA in January. The master plan for the site, owned by London & Continental Railways, comprises 13.5m sq ft of retail, leisure and entertainment facilities, offices and hotels. There will also be 5,312 new homes, of which 3,000 will be used initially for the Olympic Village community facilities, and public spaces.
Tripcock	2,000	*Woolwich, Thamesmead, Belvedere and Erith,* LB Greenwich	4	This is a 28 ha brownfield site located within Thamesmead. It has a 1.25 km frontage to the River Thames. The Twin Tumps and Thamesmead Lake for the eastern boundary separating Tripcock Point from Thamesmead Town Centre . Tripcock Park borders the site to the west. To the south of Tripcock Point is a safeguarded area for the proposed Thames Gateway Bridge which will separate the neighbouring Gallions Reach development and Gallions Hill. This development received outline planning in June 2006, however in March 2007 Tilfien Land announced that it is to be put on hold for the foreseeable future.

Source: London Thames Gateway Housing Sites Schedule, London Development Agency, www.lda.gov.uk

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Campaign for Better Transport

Missed Opportunity Areas:

Traffic and transport implications of the Brent Cross and Battersea Power Station developments

Despite awareness of the need to meet higher standards of urban design and promote healthier forms of travel, plans for two of London's few remaining massive development sites (so called 'Opportunity Areas') will create development with built-in car dependency.

Plans for Brent Cross would double the size of the shopping centre, include 7,500 homes, create parking for 20,000 cars and generate up to 29,000 additional car trips a day but provide no significant new public transport. The developers claim there will be a huge shift to public transport, walking and cycling but do not say how this will be achieved. The claim should not deceive the planning authorities.

An extension of the Northern Underground Line underpins proposals for Battersea Power Station, but 3,250 parking spaces are also included. Instead of being largely car free, a riverside development in Central London will be a traffic magnet built on acres of car parking.

Proposals for the Opportunity Areas should create transport conditions that meet 21st Century needs within the development itself and contribute to the improvement of transport conditions in the surrounding areas. The current proposals do neither and are a missed opportunity.

Executive summary

Neither the Brent Cross nor the Battersea scheme follows emerging best practice in designing development that promotes sustainable transport while reducing congestion and supporting alternatives to the car in surrounding areas

Public transport access to both sites is currently inadequate; transport improvements are necessarily part of both development schemes.

Neither development has:

- areas of car-free housing
- sufficient access to amenities or transport for existing local communities
- measures to improve the permeability for walking and cycling over permeability for cars ("filtered permeability") which would make walking and cycling quicker and more convenient for shorter journeys.

Brent Cross

Transport plans for Brent Cross are particularly poor. They require:

- more road capacity in an effort to deal with 29,000 additional car trips a day on an already congested road network
- inadequate plans for new public transport
- at least 12,000 car parking spaces in addition to an existing 7,600
- shops and services designed to attract people from a large catchment area, with less concern for providing services for local communities
- failure to link to existing walking and cycling routes
- a Framework Travel Plan which claims a shift from the car to sustainable transport modes but lacks the measures to deliver it.

Battersea

The Battersea development has a mixed performance on transport. It requires the extension of the Northern Line with new stations at Nine Elms and Battersea, although funding arrangements for this are still uncertain. But it also has:

- high levels of parking provision
- lack of clarity about linking walking and cycling routes across the development with surrounding areas
- shopping facilities designed to attract custom from a London-wide catchment area.

Main recommendations

- The Secretary of State should call in the Brent Cross application for a public inquiry
- The Mayor of London should insist on travel plans which provide for the vast majority of travel to and within large developments to be on foot, by bicycle or by public transport
- The Mayor should also insist on much tougher parking standards in the replacement London Plan
- The London Borough of Wandsworth should make approval of the application for Battersea Power Station conditional on a substantial reduction in planned car parking provision.

Introduction

London has 33 so-called 'Opportunity Areas'. These are major development sites, each with the capacity to provide at least 5,000 jobs or 2,500 new homes, or a combination of the two, and a range of other facilities and infrastructure.

Brent Cross Cricklewood in the outer London Borough of Barnet, and Vauxhall Nine Elms Battersea in the inner London Borough of Wandsworth are two of the largest such Opportunity Areas. In the draft replacement London Plan the former is said to have capacity for 20,000 jobs and at least 10,000 homes and the latter 15,000 jobs and at least 10,000 homes.

Each of these Opportunity Areas presents development potential so substantial that they could shape the transport and environment conditions not just of their own surroundings but of a whole London sub-region for the foreseeable future.

Climate change and the need for healthier, more active travel are two of the factors contributing to a new resolve to overcome traffic domination and meet higher standards of urban design. The Opportunity Areas are a chance to show how this should be done. They are also an opportunity to change the transport conditions of the urban and suburban places where many people already live.

It makes much more sense to build eco-quarters in towns and cities, where local facilities already exist and connections can be made with existing transport networks, than to deposit car-dependent 'eco-towns' in more remote locations outside towns and cities. International experience in places such as Freiburg shows that it is possible to create highly attractive and desirable developments that are largely car-free and where most travel is on foot, bike or public transport. Battersea and Brent Cross should seek to emulate these rather than the traditional car-based deserts that have laid waste to our cities and suburbs.

The Campaign for Better Transport recently published a report called *The Masterplanning Checklist for Sustainable Transport in New Developments*[1] which set out the proven planning principles that enable less car dependent travel patterns for residents of new developments. This was intended to apply to growth areas and the eco-towns (at a time when their location was still being discussed) but can be adapted for existing built areas.

Missed Opportunity Areas measures the proposals for Brent Cross and Battersea against the principles of the Masterplanning Checklist.

The principles of the Masterplanning Checklist can be summarised as follows:

- Development should be not be located near major trunk roads or motorways but should be adjacent to, or within existing urban centres.
- Major developments should have dedicated public transport routes. Homes should be a maximum of 800m from major public transport hubs where there should be cycle storage but minimal car parking. Development should not go ahead until public transport access is in place.

[1] *The Masterplanning Checklist for Sustainable Transport in New Developments* is available on the Campaign for Better Transport website at:
http://www.bettertransport.org.uk/system/files/Masterplanning_Checklist_2008.pdf

- Car parking standards of less than 0.5 spaces per unit should apply, car parking should be charged and be separate from homes. A high proportion of housing should be car free. Local facilities should have only limited car parking.
- Developments should be above a minimum density level (100 dwellings/hectare).
- There should be good provision of local facilities and jobs.
- Streets should be designed to be people centred and encourage walking and cycling. 20 mph limits should apply.
- Developments should be designed so that other modes are faster and more convenient than the car.
- Smarter travel programmes should be used from the outset including residential, school and workplace travel plans, a travel co-ordinator, car-clubs.

In addition, other principles should also apply to development within existing urban areas, for instance development should:

- Make good deficiencies in the existing development pattern, for example by providing new local centres and facilities, improving access to green space or supplying missing links in walking and cycling networks in order to reduce the need to travel in existing communities.
- Make it less necessary to travel for work by, for example, establishing workstations where people could work locally.

Neither the Brent Cross nor the Battersea development scheme scores well against the items on the Masterplanning Checklist. On the contrary, both schemes as currently conceived are retrograde, traffic generating projects.

The Brent Cross project, in particular, might have been expected in the 20th Century but should not be built in the 21st. It should not be contemplated for an urban location where the shortcomings of car-dependent development are so clear.

This report considers these two development sites both because they are designated ‘Opportunity Areas’ and because the final decisions on outstanding planning applications for each of them have yet to be made.

There is still a chance to get it right.

What's proposed at Brent Cross and Battersea?

A full planning application has been made for the Brent Cross Cricklewood development, and an outline application for Battersea Power Station and its surrounding land, which is part of the much larger Vauxhall Nine Elms Battersea (VNEB) opportunity area. The sites are respectively 151 and 21 hectares (though the whole of the VNEB area is around 200 hectares). Brent Cross is in outer London, and Battersea Power Station in inner London separated from the Central Activities Zone only by the river. VNEB is by far the largest remaining redevelopment area of central/inner London.

Both applications are for mixed use developments, and, in addition to homes and retail space, include offices, a hotel and a range of amenities.

Brent Cross
It is claimed that the Brent Cross scheme, based on an extension of the Brent Cross Shopping Centre, will provide a new town centre with an additional 75,000 square metres of retail space, mostly located north of the North Circular Road, with 7500 homes and the rest of the development located south of the North Circular Road. It is one of at least three major development schemes in the southern half of the London Borough of Barnet, the others being at Colindale (10,000 homes) and Mill Hill East.

Transport for London (TfL) has been critical of transport and other aspects of the Brent Cross proposals. Among other concerns, it has criticised the level of car parking, the poor provision of public transport and the failure to integrate transport and spatial development. It has also been concerned that public transport improvements be provided in the early stages of the development.

In March 2010 the Mayor announced his approval for Brent Cross saying he was satisfied that "the application fulfils the need to have the kinds of transport links that will bring fluidity and rejuvenation to Brent Cross while avoiding potential problems caused by any extra traffic." The Secretary of State is now deciding whether to call in the application for a public inquiry.

Battersea
The Battersea Power Station scheme in the London Borough of Wandsworth will re-use the power station and create about 51,000 sq m of retail space and 3800 homes most of it on land around the power station.

Comments from TfL on Battersea have also been critical of the amount of car parking proposed; the application for outline planning permission has not yet been determined.

Location in relation to the road network

Within existing urban areas there is less choice of location for development and few if any locations in London are far from the major road network. That said, the proximity of Brent Cross to the major road network will make car travel more likely, indeed the proposals are designed to facilitate it. The new town centre will straddle the North Circular A406, and the site is bounded to the west by the A5 (and various rail lines) and to the east by the A41 Hendon Way. The A406 and A41 are both on the Transport for London Road Network (TLRN) and the A5 on the Strategic Road Network. The M1 begins at the north-west corner of the Brent Cross site at Staples Corner.

The transport proposals for Brent Cross include alterations and 'improvements' to no fewer than 30 highway junctions. TfL concludes that: 'There is a major emphasis in the planning application on providing additional highway capacity and junction improvements to establish the primary means of access to the site.' *The Cricklewood, Brent Cross and West Hendon Area Development Framework*, adopted as Supplementary Planning Guidance by Barnet Council in 2005, forecast that 29,000 additional cars would enter the area in a 12 hour weekday period though both developers and council now claim that this is an overestimate.

The essentially triangular VNEB site on the other hand is defined by the river to the north and the A3025 and the A3216 to the south and west; the former is part of the TLRN, the latter only a borough road. The planning application also includes a series of alterations and improvements to various road junctions.

Public transport

At the moment neither site has adequate access by public transport. The Brent Cross site currently has a Public Transport Accessibility Level (PTAL) of between 1 and 5, where 6 is most accessible. (PTALs are a measurement of proximity to public transport and are used in various ways, for instance to guide the provision of new public transport services or to determine the amount of parking in new development, though for this purpose their use is arguably misguided).

Much of the Brent Cross site is difficult to access from the rail network. Most locations within it are more than 1 km from Cricklewood Station (Thameslink) to the south and Brent Cross Tube station on the Northern Line is cut off by the Brent Cross flyover and its access roads, where the A41 crosses the North Circular. TfL says that 'The location of existing public transport nodes, with the exception of the existing bus station, is divorced from the core of the regeneration area which makes accessibility difficult.'

Considering its location in central/inner London the VNEB area feels remarkably remote. Rail access is either from Battersea Park or Queenstown Road stations to the southwest or Vauxhall Tube to the north east. The PTAL level at Battersea Power Station ranges from 2 to 4.

Both the Brent Cross and Battersea Power Station sites can be reached by a number of bus services.

The transport elements of the Brent Cross scheme are described by TfL as 'complex'. Three main changes are proposed to improve public transport access: a relocated bus station in the shopping centre on the north of the A406 with new bus routes and higher frequencies on existing routes; a new Brent Cross station north of Cricklewood on the Thameslink Midland mainline and a 'Rapid Transit System' consisting of a minibus plying a route from Cricklewood Station to the shopping centre and Brent Cross underground station via the new 'town centre'.

However, the walking routes to the new bus station would be longer and it would be located immediately next to the noise and pollution of the North Circular Road, which at that point has ten lanes. The so-called Rapid Transit System would be poor value for money, according to TfL, and would only be funded by the developers for a short time. Critics claim the existing Thameslink Cricklewood and Hendon stations will be likely to close if Brent Cross Thameslink is built as the stops would then be too close together. TfL does not consider that the public transport and other

measures to mitigate the transport impact of the Brent Cross scheme will be effective in achieving the shift to walking, cycling and public transport that it says is vital to its success. The planned public transport provision for this enormous development project bear no comparison to new tram or other rail services provided for equivalent schemes elsewhere. The developer could be accused of proposing no more than the bare minimum of new public transport to secure planning approval.

By contrast the central transport element of the Battersea proposal is for an extension of the Northern Line from Kennington with new stations at Nine Elms and Battersea. Transport for London is exploring innovative funding arrangements that would take account of future tax receipts and include a role for, or contribution from, the developer. A strategic transport study for an Outline Planning Framework for the VNEB concluded that the Northern Line Extension plus a package of bus, highway, walking, cycling and river transport improvements would provide the necessary increase in transport capacity to support the development.

That development should not go ahead until public transport capacity is in place to serve it, is a principle of the *Masterplanning Checklist.* It is also a requirement of the London Plan under policies to integrate transport and development, match development to transport capacity and phase transport infrastructure provision (Policies 3C.1, 3C.2 and 3C.11). The developers of Battersea Power Station propose that the Northern Line Extension be operational before the retail elements of the scheme are occupied. In comparison, the Transport Assessment for Brent Cross, according to TfL, does not show how new public transport capacity will be provided ahead of demand. Far from meeting its claim to achieve a switch from car travel to public transport, walking and cycling, Brent Cross will create a pattern of car dependency from the outset.

Car parking

The Brent Cross application includes 12,000 parking spaces in addition to 6,800 existing spaces in the existing shopping centre and a further 800 which already have planning permission. 1,300 residential spaces would be provided in phase 1 at a ratio of 1:1. Parking for the remainder of the 7,323 planned homes would be provided on a sliding scale of 0.81 to 0.5 spaces per unit. (There is some concern that the developer only wishes to build the first phase as this includes all the additional retail space.) When complete in 2026, there would be a total of around 19,600 parking spaces in Brent Cross.

The application for Battersea originally included a total of 3,974 dwellings and 3,851 parking spaces, since reduced to 3257. Despite the reduction TfL remains concerned about the proposed level of parking, particularly the office, retail and residential parking. At the reduced figure parking would be provided at a ratio of 0.5 spaces per dwelling. Parking would also be provided for the retail element of the scheme (1045 spaces) with the remainder of the parking provision spread among business, community, leisure, hotel and other uses.

In neither development is it proposed to create any areas of car free housing.

Density

It is not possible to work out planned development densities without doing more research. However, both schemes propose quite high rise development (a mixture of blocks and terrace housing at Brent Cross and mostly 15-20 storey blocks at Battersea). In London it is normally in developers' interest to build to higher densities to achieve the maximum number of dwellings on a given site

though they often also want to provide generous parking, which they believe is demanded by potential purchasers. Not providing parking would assist in creating high density but lower rise development.

Local facilities and jobs

Again it is not easy to gauge the adequacy of proposed local facilities without going into a great deal more detail. Both schemes are for mixed use development and include local retail and community space in addition to new homes, offices and leisure facilities. In each case assessments appear to have been carried out to calculate the need created by the developments for such social amenities as doctors' surgeries, dentists and schools.

Apparently 'the wider planning aspiration for Cricklewood and Brent Cross is to provide a town centre location where homes, jobs and services are located in close proximity thus reducing the need to travel', however the approach of the Transport Assessment for this development is, according to TfL, 'heavily weighted in favour of car use'.

Neither development appears to have sought to make good any shortfall in facilities for the surrounding areas and contribute to a wider land use pattern where more needs can be met locally and more journeys can be made on foot or by bicycle. The Outline Application Planning Framework for Vauxhall Nine Elms Battersea recommended that walking and cycling routes be provided through the development to provide access to the riverside from existing estates on the other side of Battersea Park Road but this does not appear to have happened. Far from being just a local amenity, the retail development is intended "to serve a wide catchment and capture some expenditure from competing centres such as the West End, Kings Road, Brent Cross, White City and Kingston". The Battersea application includes 15,000 sq m of community and cultural floor space but, according to the report of the Mayor's Planning Decision Unit 'further discussions are necessary in respect of the size and type of new facilities needed.'

Designing people friendly streets, and encouraging walking & cycling

The level of planned parking provision and therefore of likely traffic volumes on at least some streets and roads implies that the quality of the street environment will be compromised at both developments. Indeed, as already noted, the Brent Cross planning application emphasises the provision of additional highway capacity. Neither development appears to have set out to improve access to amenities or transport for existing local areas in order to contribute to a wider pattern encouraging walking and cycling.

The Brent Cross application includes new or improved pedestrian bridges across the A41 and A406 but it is not clear at what stage of the development these will be built. TfL is critical of the developers for not assessing the quality of pedestrian routes or estimating pedestrian flows at key interchanges or on main corridors between transport nodes, including the strategic walking routes. The developers' Transport Assessment is criticised for failing to 'assess or commit to wider developments which link the development to the wider community and to existing networks, for example the London Ring or Strategic Walk Network'. The same criticisms are made in regard to cycling. Though the plans claim to provide for cycling within the development they fail to show how they will link up with the wider network of cycling routes beyond it. Though there will be 12,000 new parking spaces for cars there will only be 9,500 for bicycles.

The plans for Battersea Power Station include a commitment to extend the Thames Path along the river edge but the Transport Assessment for Battersea fails to show how the site will integrate with or improve the existing cycle network or provide for cycle access through the site. A total of 5369 cycle parking spaces are proposed throughout the site in line with TfL standards. TfL considers that the public realm will be of a high quality but that further information is required on how the development will link with the existing walk and highway network.

Making walking and cycling faster and more convenient than the car

People choose their mode of transport according to its convenience and cost. The cost and availability of parking, for instance, is a well known determinant of whether people drive. Designing developments to make other modes faster and more convenient than the car is a principle of the Masterplanning Checklist. Designing the street network to allow the passage of pedestrians and cyclists but not cars at certain junctions (known as filtered permeability) is one way that this can be done, making local journeys take longer by car than on foot or by bicycle.

Neither at Brent Cross nor at Battersea, are there known to be plans to design the road network along these lines.

Smart travel measures

Smart travel measures (often called “smarter choices”) are intended to influence travel behaviour in order to reduce car use and encourage travel by more sustainable means. Travel plans are a package of such measures as applied to a particular destination. They are almost universal for London schools, increasingly being taken up for workplaces and the development of a travel plan is generally an essential condition for approval of major planning applications.

The Brent Cross applicant has prepared a Framework Travel Plan. While this sets out progressive changes in modal share it does not show how this will be achieved, how the package of infrastructure improvements or constraints on vehicle use and parking will contribute towards such changes or how the site-wide travel plans will contribute to achievement of Framework Travel Plan targets. Also, as TfL points out, the achievement of modal shift targets requires public transport capacity to be available ahead of demand but, as noted above, the Transport Assessment for Brent Cross does not show how or when this will happen.

The plans for both Brent Cross and Battersea include welcome proposals for car clubs.

Conclusion

The scale of the land identified for development at Brent Cross Cricklewood is vast. In the current application the challenges posed by the potential to satisfy 21st Century land use and transport needs have not been met. No new public transport spine has been proposed to serve this development or the other huge developments in the immediate area. No attempt has been made to create a pattern of land use in which journeys can be shorter and most travel can be on foot, by bicycle or by local public transport. Instead the proposed development would depend on a large catchment area and a predominantly car-based clientele creating car scale not human scale development over a wide area. It will provide for car access and generate car traffic exacerbating existing traffic problems on the North Circular Road and other parts of the strategic and local road networks. This is a missed opportunity.

There is more merit in the proposals for Battersea Power Station, based as they are on a new public transport spine. But in a riverside location in central London, the emphasis must be on forging walking and cycling routes and providing local amenities both for the new development and for existing communities. A pedestrian and cyclist bridge across the river to Pimlico and the rest of central London is an obvious but missing element. Links between existing communities and the river should have been provided but have not been. Instead a central London riverside location is to be used to provide parking space for over 3000 cars and parts of the development are designed to attract shoppers from as far way as Brent Cross and Kingston. The Battersea site provides an obvious opportunity to create a largely car free development but instead, as it stands, this is another missed opportunity.

Recommendations

- Secretary of State should call in the application for Brent Cross and hold a public inquiry
- The Mayor of London should insist on travel plans which provide for the vast majority of travel to and within large developments to be on foot, by bicycle or by public transport
- The Mayor should also insist on much tougher parking standards and policies in the replacement London Plan to ensure much reduced provision of parking space in new developments and encourage car free development
- The Mayor should ensure enforcement of policies requiring that new development is served by public transport and that public transport is available before the development is occupied
- The London Borough of Wandsworth should make approval of the application for Battersea Power Station conditional on a substantial reduction in planned car parking provision.

April 2010

Richard Bourn, London Campaigner
Campaign for Better Transport

Campaign for Better Transport is UK's the leading authority on sustainable transport. Our ideas have won us the support of national decision-makers and local activists, and have enabled us to secure transport policies that improve people's lives and reduce environmental impact.

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London Assembly investigation into making it easier and safer to walk in London

Response to information
Transport for London

August 2010

Summary

TfL is prioritising a series of initiatives listed in the MTS in 2011 to support a proposed Year of Walking. Existing successful initiatives that demonstrate clear and measurable benefits for walking in London will be continued as these programmes are already contributing to increased levels of walking trips and walking numbers in London.

In addition to these ongoing programmes, a number of new initiatives to support a sustained increase in walking have been identified by TfL and partners. Subject to the central Government spending review that will be announced in October 2010, these new initatives will be delivered by TfL with partnership support during 2011 to ensure that the Year of Walking results in a sustained increase in walking in London.

Introduction

This submission responds to the London Assembly's request for information on Transport for London's (TfL) ongoing walking programmes and activities. The submission also details proposed initiatives for a 2011 Year of Walking.

Specifically, the London Assembly has requested information on the following areas:

- Which of the initiatives to encourage walking as listed in the Mayor's Transport Strategy (MTS) will be prioritised in 2011 year of walking and why?
- What, if any, other work is planned to ensure '2011 year of walking' results in a sustained increase in walking?
- What measures is TfL applying to the initiatives listed in the MTS to assess their impact on encouraging more walking? What are the results of these initiatives?
- Which borough and other organisation is TfL working with on initiatives to encourage more walking?

The earlier sections of this submission provide an overview of walking in London. Later sections explore the questions posed by the Assembly in more detail.

Walking in London Overview

Walking currently accounts for a quarter (or 24 percent) of all trips made in London. The Mayor's Transport Strategy (MTS) sets a target of an additional one million walking trips per day by 2031. This target would increase walking's mode share to 25 percent by the same date[1].

Walking offers a free, healthy and attractive way to move around the capital. Increasing the number of walking journeys taking place can help improve the health of Londoner's, and their enjoyment of the city. Crucially for TfL, walking is a common element in almost all transport journeys – whether they are complete journeys by foot, or parts of a multimodal trip, involving interchange to bus, underground, rail or cycle hire. As such, it is important to provide for walking as a central component in our transport system.

Mayor's Transport Strategy and Walking

There are three key strands of the Mayor's walking strategy outlined in the MTS.

1. Making London's streets safer and more attractive for walking: clearing clutter from London's streets, freeing up space and making walking safer for all.
2. Making it easier to plan journeys on foot: helping pedestrians to find the quickest and easiest routes through appropriate tools and systems.
3. Promoting the health and environmental benefits of walking: helping people to consider turning their daily journeys into an opportunity to get healthier and make smart travel choices.

To deliver these strands, the MTS sets out a number of proposals on walking. The chief proposals are listed in Appendix One.

Walking In London

Walking currently represents 24 percent (5.7million walk trips) of the trips in London each day. This figure includes only those walking trips that are walked from start to finish (classed as walking to get from A to B), and as such is an underestimate of the overall importance of walking, which often forms a component of other journeys.

In London, seven out of ten trips below one kilometre are already walked, as shown in Figure One. Six in ten Londoners walk for five minutes or more at least five times a week. 90 percent of all walk trips are made in daylight hours (between 7am to 7pm).

[1] Mayor's Transport Strategy (GLA) 2010 p197, Chapter 471

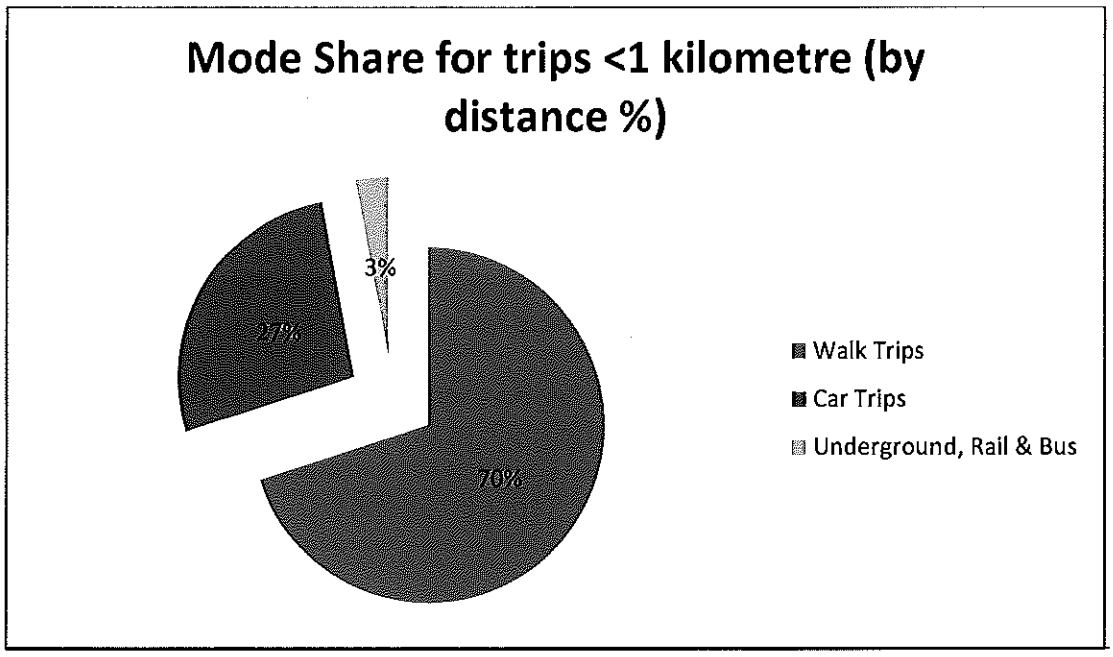

Figure One: Mode share for short trips

80 percent of the potential for additional walking trips in London exists in Inner and Outer London, with the remaining potential 20 percent located within Central London. Current concentrations of walking activity in Inner and Outer London is shown in Figure Two.

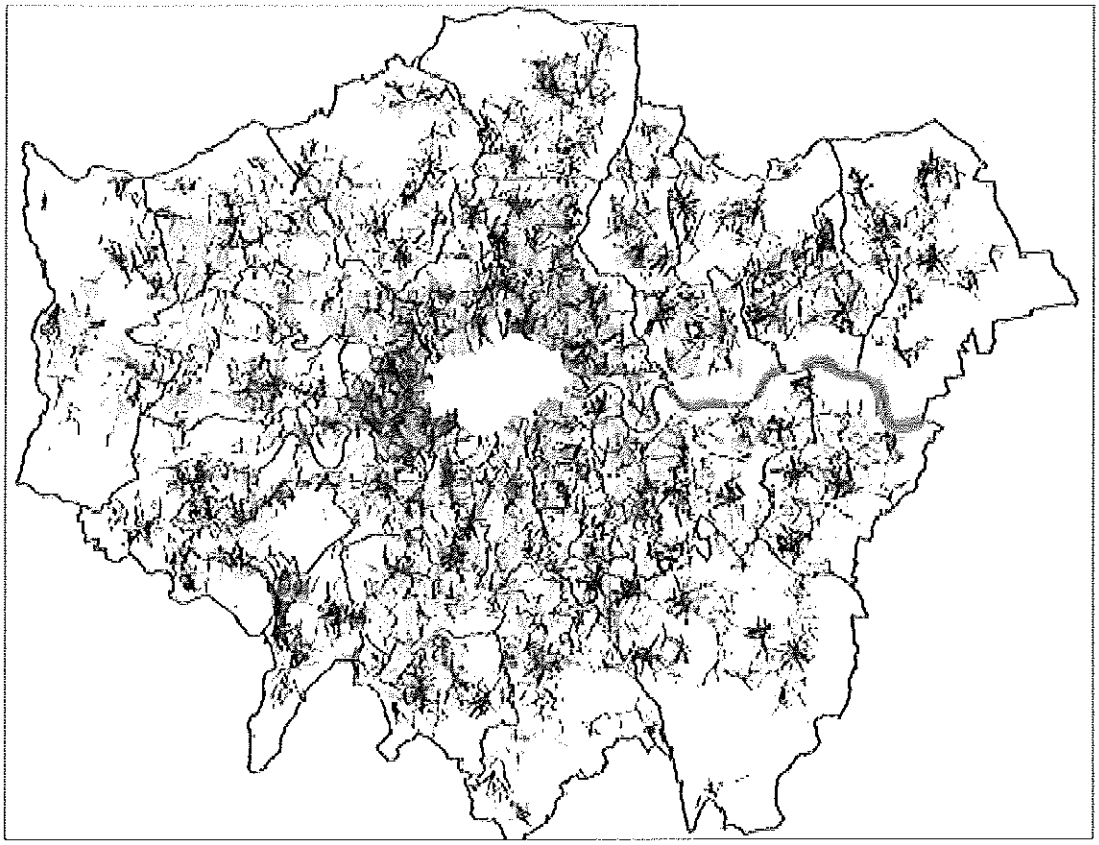

Figure Two: clusters of walking activity in inner and outer London

Walking trips, where either the whole journey is made on foot, or to access public transport, are classified as utility walking. Utility walking has a number of barriers that prevent greater uptake. These are shown in Figure Three.

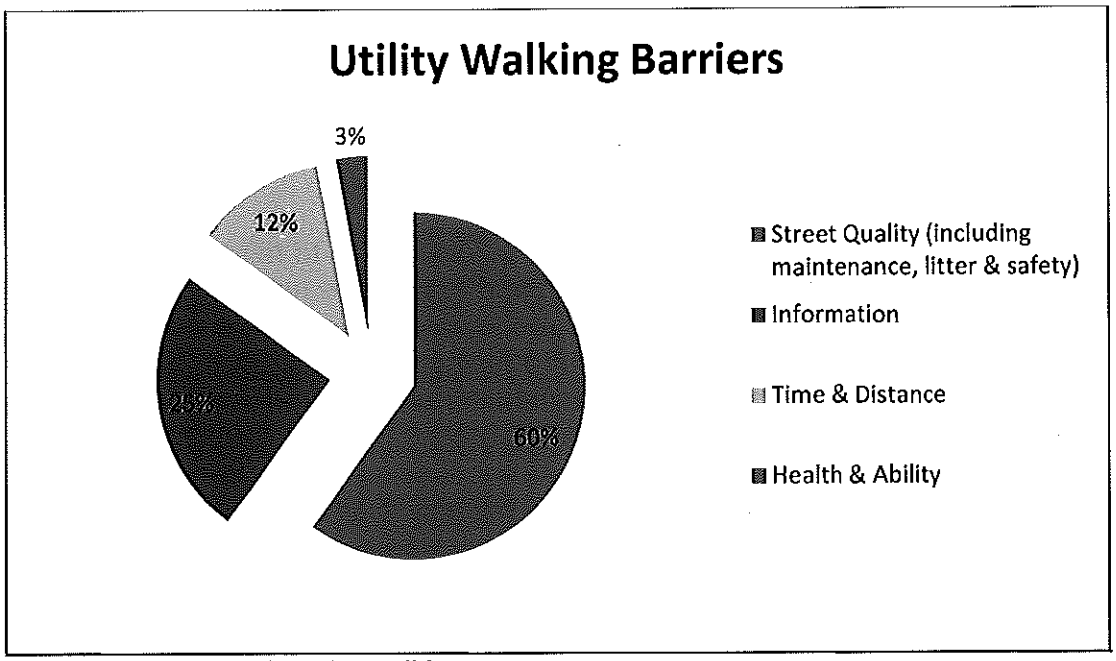

Figure Three: Barriers to walking

Utility walking trips, in contrast to leisure trips, offer TfL the most potential for mode switch to walking, away from short distance private car and public transport trips. It is therefore important to look at ways of overcoming these barriers to walking.

TfL gathers a range of data and information to help inform transport planning for walking. This range of data includes:

- London Travel Demand Surveys that inform the annual Travel in London report
- Attitudes to Walking surveys published annually
- Analysis research such as MOSAIC studies
- Local scheme monitoring investigations

Ongoing research to better understand walking will further enable TfL to target interventions appropriate to specific barriers, or needs of an area.

TfL's Responsibility

TfL's role is to translate Mayoral objectives for walking into delivery projects and programmes that realise these objectives, working with partner organisations as needed to deliver these priorities. For 2011, TfL has prioritised certain initiatives within the MTS to encourage more walking, based on analysis and evidence gathered through monitoring of schemes.

2011 Year of Walking Objectives

This section addresses the first question posed by the London Assembly, specifically detailing the prioritised initiatives to encourage walking listed in the MTS during for 2011 with supporting justification.

Also covered in this section is TfL's response to the third question posed by he Assembly, reviewing the measures TfL is applying to the initiatives listed in the MTS and the results of these initiatives.

TfL's overarching objective for '2011 Year of Walking' is to raise the profile of walking as a mainstream transport mode and encourage more people to walk. The other main objectives for 2011 include: encouraging people to walk for short journeys rather than taking the car or using public transport; promoting the health benefits of walking alongside health partners; and promoting walking as central to the Mayor's vision of London as a liveable city.

The proposed 2011 Year of Walking does not aim to directly replicate the approach seen this summer with cycling, which was supported by significant new investment (e.g. Barclays Cycle Hire and Cycle Superhighways). Rather, the Year of Walking aims to raise the profile of walking in general and the importance it plays as a key mode of transport in London, as the glue that links together all the transport modes. The year of walking will be a compilation of existing and enhanced walking activities and messaging. There will be a focus on coordinated delivery of existing and new projects, between partners across the year to realise the Mayor's vision of 'Making Walking Count'.

Activities should highlight the importance of walking in supporting the vitality of town centres, in promoting short car and public transport journeys as ideal opportunities to switch to walking and to help relieve pressure on the transport network where appropriate. 2011 will promote the health benefits of walking and illustrate how walking is central to the Mayor's vision of London as a liveable world city.

Prioritisation of Walking Initiatives in 2011

The MTS (Appendix One) lists the walking initiatives to be taken forward by TfL and partners. Overarching proposal 59[2]: *delivering a step change in the walking experience in London by making walking count*[3], will be achieved by successful implementation and delivery of the combined projects and programmes listed in MTS proposals 45 and 60 to 62.

This prioritisation is based on TfL monitoring that has identified where projects work and contribute clearly to 2011 objectives.

[2] Mayor's Transport Strategy p197, GLA, 2010

[3] Mayor's Transport Strategy, p197, GLA, 2010

These 2011 priority projects are reviewed below, broken down by intervention type, with supporting evidence to justify prioritisation.

1. Making London's streets safer and more attractive for walking

The following paragraphs detail walking initiatives that will be prioritised in 2011, and build on existing work by TfL and partner organisations. They reflect the MTS priority to make London's streets safer and more attractive for walking.

A) Key Walking Routes

Many town centres depend on good walking access to underpin their attractiveness. TfL research as shown in Table One[4] indicates that people arriving on foot tend to spend more in town centres than other modes. The economic vitality of town centres depends in part on maintaining and improving the walking environment.

	Total	Bus	Walk	Car	Tube	Train	Bicycle
Mean	£109	£105	£136	£95	£87	£89	£114
Sample Size	4637	1756	1184	799	450	295	103

**Excludes those that did not give an expenditure or frequency visiting area*

Table One: Average monthly spend*, by mode in sample of town centres

The Key Walking Routes (KWR) programme[5] has been developed to deliver enhanced walking environments and routes into town centres to support growth in these economically important hubs.

KWRs, as per MTS Proposal 60a, are detailed and explained within the annually revised TfL produced 'Walking Good Practice' booklet, issued to all London boroughs and partnerships.

A KWR links together places that people need to travel between with high quality walking conditions, delivering complete route 'makeovers' along defined corridors (see images in Appendix Two) .

KWRs have also been developed to respond to the factors that Londoners themselves consistently state prevents them from walking more often, gathered from the annual TfL Attitudes to Walking surveys[6]. These surveys highlight that Londoners are deterred from walking by dirty vandalised streets, motor traffic fumes, concerns over personal safety and lack of information.

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[4] Understanding the economic contribution made by bus users to London's town centres. TfL, 2009

[5] Walking Good Practice, TfL, 2010 p11, Chapter 3

[6] Attitudes to Walking, TfL, 2009

In response, KWR's typically include the following features to directly tackle these barriers to walking:

- widened and repaved footways
- new and improved pedestrian crossings on pedestrian desire lines
- improved accessibility including raised tables and dropped kerbs
- decluttering of street furniture
- environmental enhancements including hard and soft landscaping
- seating
- measures to improve pedestrian safety
- pedestrian wayfinding
- street lighting that benefits pedestrians
- shared space where appropriate

The KWR programme has been prioritised by TfL as an important initiative for boroughs to pursue based on analysis of monitoring data from completed examples to date, as listed:

- Castle Street, Kingston (Pilot)
- Wanstead, Redbridge
- Covent Garden to Holborn Circus, Clear Zone Corridor
- Marks Gate to Chadwell Heath, Barking & Dagenham
- Redcross Way, Southwark

Monitoring evidence from some of these completed examples is detailed below. KWR's sit well with the new LIP programmes as a means of delivering walking improvements alongside other modal needs in the new neighbourhood and corridors context that LIPs are designed to achieve (for an overview of LIP walking delivery, see Appendix Three).

Castle Street, Kingston
A pilot KWR at Castle Street in Kingston sought to support local businesses by improving a key link between the town centre and rail station.

Scheme surveys[7] show that this KWR pilot realised a:

- 12 percent increase in pedestrians numbers post scheme completion

Furthermore, this pilot also uncovered additional indicators of the improvements that KWRs can provide, beyond increases in pedestrian levels that contribute to the quality of life aspects that walking provides. These indicators are listed below:

- Female pedestrian numbers have increased by 6 percent

[7] BSP Walking 0506 outcome monitoring report, Colin Buchanan, 2007

- Number of pedestrians aged 65 and over has increased by 5 percent
- Number of pedestrians groups comprised of 2 or more people has risen by 9 percent

Following implementation of the KWR, Castle Street demonstrates an increase in pedestrian activity levels the length of the improved corridor, showing that the area is now more of a destination than a transit corridor. Moreover, the types of activities that pedestrians are undertaking post scheme have also widened, indicating that the space has increasingly become a place to meet, socialise and undertake other pedestrian actions.

These measures all suggest the area is now seen as a safe place to spend time and more of a destination space in its own right.

Wanstead Church Green, Redbridge
The first full KWR at Wanstead sought to tackle pedestrian safety concerns through Christ Church Green, a key link between the Underground station and residences.

Post scheme monitoring[8] shows that the walking infrastructure improvements achieved significant increases in pedestrian numbers, with:

- pedestrian numbers using the Green during the day up by 75 percent
- pedestrian numbers using the Green at night up by 122 percent

These increases indicate a reassignment from previously longer walking trips that involved significant detours to avoid the Green and the previous perceived safety issues associated with walking through the Green.

Clear Zone Corridor, Central London
This KWR in the Clear Zone area of Central London (located at the convergence of the borough of Camden, City of Westminster and City of London from Covent Garden to Holborn Circus) is much larger than the Kingston and Redbridge examples already delivered and has provided significant pedestrian infrastructure improvements coupled with support for other modal requirements. The principal driver for this KWR was to support retail in this busy hub, while raising the quality of the public realm through a new urban space.

Comprised of four interlinked phases, this KWR provides a seamless walking route from the tourist and retail hub of Covent Garden to the commercial district around Holborn. In addition to improved walking environments, the corridor offers rejuvenated and new public space that add to the enjoyment of walking, all delivered through the KWR programme. This KWR was monitored

[8] LIP Walking 0708 outcome monitoring report, Colin Buchanan, 2009

at Long Acre (phase one of the KWR), where significant footway widening, accessibility works and decluttering of the street took place.

The results from this monitoring[9] show that there was a:

- 32 percent increase in female pedestrians
- 20 percent reduction in pedestrians who felt crowded
- 27 percent of people felt motor traffic levels had fallen, despite no restriction in vehicle access
- 27 percent of people felt motor traffic speeds had fallen substantially, despite no change in speed limit

In a similar fashion to Castle Street, the widened footways and increased lighting help to explain the decrease in perceptions of crowding and rise in female users through improved perceptions of safety.

As interesting however, are the data results in relation to perceptions of motor vehicles. Despite vehicle access being as before with no decrease in speed limits, pedestrians perceive the effects of motor vehicles on Long Acre to be much reduced. It is likely that the widened footways create a greater sense of pedestrian ownership of the space and motor vehicles now react accordingly. The success of the KWRs delivered to date shows that this programme supports increased levels of walking, tackles the barriers to walking and also contributes to the wider, social aspects of walking.

In 2011, in partnership with boroughs, additional KWRs will be progressing and completing, with new schemes being commenced. The KWR currently ongoing and completing through 2011 are listed below:

- Willesden Green, Brent
- Hackney Central to London Fields, Hackney
- Woodford, Redbridge
- South Woodford, Redbridge
- Wallington, Sutton
- Walthamstow Central to Queens Road, Waltham Forest

New KWR schemes will commence in 2011 once borough LIP programmes are finalised at the end of 2010. All KWRs, existing and new are funded through the LIP to improve walking environments across London, tackling barriers and supporting more walking in London, TfL will support boroughs to deliver KWR in their areas.

B) Strategic Walk Network

The Strategic Walk Network (SWN) as noted in MTS Proposal 60d, forms TfL's investment into leisure walking. It is a network of 7 walking routes that

[9] LIP Walking 0708 outcome monitoring report, Colin Buchanan, 2009

span the capital. To date, TfL has invested £6.9m into the network from financial year 2005/06 through to the current 2010/11 programme.
The SWN plays an important role as a high quality walking network for health and social walking. The SWN offers a pan London walking resource that TfL, boroughs, NHS London and primary care trusts can use to support quality of life in London and reduce obesity and inactivity.

SWN Assessment
Annual outcome monitoring on the SWN[10], using qualitative and quantitative measures, assesses the effectiveness of TfL's investment and confirms progress against the 2012 delivery deadline.

Headline 2008/09 SWN monitoring figures show:

- 2.6m SWN pedestrians annually
- 92 percent user satisfaction with SWN
- 300,000 web visits to home site at walklondon.org.uk
- 500,000 route map leaflets downloaded in 2008/09
- 520,000 route leaflets distributed across London

2011 plans for the network focus on the following:

- Delivering the Jubilee Walkway, Thames Path, Green Chain Walk, Lea Valley Walk, London LOOP and Capital Ring routes
- Holding 3 free led walking weekends
- Reaching 1m visitors to the SWN website at walklondon.org.uk through new postcards displayed at key destinations and attractions across London that drive interest to the website

C) Crossing the road safely

The provision of new surface crossing facilities, as per MTS Proposal 60b, can deliver a real walking impact. A good example of this is the Kingsbury Road, Brent signal crossing that was implemented. This new facility was monitored after implementation and observed a:

- 12 percent increase in pedestrian numbers crossing the road using the new facility.

Similarly, a scheme at Tolworth Broadway, Kingston where a subway was replaced with a new surface level, staggered signal crossing facility[11] delivered the following results:

- An average increase in crossing movements of 2 percent

[10] SWN KPI suite reports 2008/09

[11] LIP Walking 0708 outcome monitoring report, Colin Buchanan, 2009

- An average increase in pedestrian numbers along the Broadway of 15 percent.

This increase in pedestrian numbers on Tolworth Broadway was most noticeable on the eastern, less frequented side of the Broadway, with important effects for local retailers and businesses.

Nevertheless, TfL has implemented a number of other individual pedestrian crossing facilities through LIPs where monitoring[12] indicates that increases in levels of walking generated by the new facilities on their own are relativity small (see Appendix Four for further details). There are however positive complimentary road safety benefits such as average speed reduction by motor vehicles in the vicinity of the facility, and the concentration of crossing movements within a reduced radius of the facility.

TfL therefore believes the provision of new crossing facilities are more effective investments if they are delivered as part of a package of improvements along a route or corridor.

As such, in 2011 TfL and borough partners will deliver a package of new crossing facilities across both the TLRN and borough roads to support walking, seeking to package them within a corridor or area improvement programme wherever feasible.

2. Making it easier to plan journeys on foot

A) Legible London

Legible London (LL) as noted in MTS Proposal 61a, is another TfL priority walking initiative for 2011 Year of Walking and has been a TfL funded and partnership delivered project to improve the provision of pedestrian information across London.

Not all barriers to walking are physical. TfL research has identified that wayfinding and awareness are critical factors when choosing to walk with missing or uncoordinated pedestrian information discouraging the choice to walk (over half of Londoners say they would walk more if they had access to more information about routes)[13]. The LL system is designed to provide consistent information for people walking throughout London. Legible London also supports congestion relief on the public transport network generated by short distance journey due to lack of walking information,

Success of LL has already been identified through evaluation of the Bond Street prototype. Monitoring results[14] from this indicate:

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[12] LIP Walking 0708 & 0809 outcome monitoring reports, Colin Buchanan, 2009

[13] Attitudes to Walking, TfL, 2009

[14] Legible London Bond Street evaluation framework report, Colin Buchanan, 2008

- 62 percent of 2,600 interviewees said that the system would encourage them to walk more
- 91 percent said that the system should be rolled out across the Capital
- 85 percent of the public surveyed were satisfied that the new system is simple to use
- Pedestrian journeys in the Bond Street area were quicker by 16 percent on average

Three larger pilot trials for LL have recently concluded at:

- Richmond & Twickenham
- Southbank & Bankside
- Clear Zone area in central London

The results of these pilots are due in August 2010, but the completion of the pilot LL programme has already proved the applicability of the system across London, from dense, central areas to outer lying, suburban regions of London.

Proposal measure 61c also encompasses delivery of LL and relates to wider implementation of LL system mapping and information display into other TfL Transport choices such as Underground, Buses, Cycle Hire and river services.

In 2011, the programme will undertake new implementations across London. TfL will work closely with boroughs, business improvement districts (BIDs) and other private funders to support wider introduction of the system across the capital, chiefly funded through LIPs and private developer funding.

In terms of the next priority area, TfL is working with the ODA, LOCOG and five Olympic host boroughs on achieving consistent pedestrian wayfinding information in key areas (venue and non-venue) in time for the 2012 Games.

3. Promoting the health and environmental benefits of walking

Walking is one of the easiest ways for people to engage in physical activity but too few people are undertaking this simple and free form of exercise, as the following figures illustrate:

- Only 20 – 30 percent of London's are doing 5 x 30 minutes of exercise per week
- 50 percent of Londoners are classed as sedentary (less than 30 minutes moderate level physical activity over a period of 3 months)
- Over half of London Boroughs have seen a reduction in exercise participation rates during 2005/06 – 2008/09 with over two thirds experiencing an increase of less than 1 percent
- People who are physically active reduce their risk of developing major chronic diseases – such as coronary heart disease, stroke and type 2 diabetes – by up to 50 percent, and the risk of premature death by about 20-30 percent

- Currently in London one in six adults and one in five of London's 10-11 year olds are obese

Smarter travel initiatives, as noted in MTS Proposal 62 are a further priority walking initiative for 2011 and the Year of Walking, delivered by TfL directly and through partner organisations.

A) Workplace Travel Planning

Workplace smarter travel measures aim to reduce congestion on the road and public transport network, supporting walking, cycling and where relevant, public transport when moving to and from places of employment.

The workplace travel planning programme at TfL is currently working with over 100 organisations across London to promote smarter travel to and from places of work.

A range of incentives and support can be provided to businesses, including information on local walking routes, maps and walking times to key destinations. As a result, an average 13 percent mode shift from car journeys has been observed, of which around 3 percent resulting in a switch to walking. In addition to direct support to organisations, TfL is also a contributory partner in workplace travel planning through Business Improvement Districts (e.g. Better Bankside, Golden Mile firms) and other transport providers such as Heathrow airport.

B) School Travel Planning

TfL has now accredited (a status of recognition for work towards sustainable travel against set criteria) the 850th sustainable travel school in London. This represents a 42 percent increase from 597 schools in 2009. The average mode shift (away from private car) for accredited schools is 10 percent, with 6.2 percent of this mode shift coming from a switch to walking.

TfL continues its involvement in the long established Walk to School programme at both a primary and secondary school level in partnership with Living Streets, boroughs and schools. TfL provided initial funding to establish these projects. Now that these projects are running successfully, Living Streets is responsible for ongoing management of the programme.

Boroughs use LIP funding to deliver their local Walk to School projects including Walk on Wednesdays. 1610 schools in London take part in the Walk on Wednesday programme. These schools account for 85 percent of the nationwide total of 1895 schools in the programme. This results in 180,000 schoolchildren in London participating regularly in Walk on Wednesday.

Now that the primary school travel planning programme is well-established and managed externally, TfL has redirected funding towards new initiatives and ideas to encourage schoolchildren to walk to school.

The bulk of this funding is now being targeted at secondary school level, where the walk to school programme is less established and different approaches are needed for older age groups.

One example of a successful new approach is the 'Step to Get' project trialled at Wimbledon and Bexleyheath. This new initiative aims to change the behaviour of older children by encouraging them to walk journeys they previously made by public transport, typically by bus. This can bring direct operational benefits for TfL, as well as health benefits for individuals and help to tackle anti-social behaviour problems. Incentives to support behaviour change included collecting points by walking that can be redeemed locally in shops, new common room facilities and healthy breakfasts encouraging pupils to arrive earlier to school.

Results[15] from the two pilots indicate:

- Over 100 students regularly walked instead of taking the bus in Wimbledon
- The peak of demand for travel on bus services was dispersed, with children travelling earlier than previously
- The number of children unable to board at a congested bus stop in Wimbledon fell by around 50 percent
- Average bus dwell times at the same bus stop fell by 42 seconds
- The Bexleyheath pilot recorded an 18 percent reduction in number of students boarding buses
- Overall, the Step2Get pilots showed that an achievable level of modal shift from bus to walking is in the region of 13-18 percent of the target market, depending on location

For 2011, TfL is planning a number of smarter travel initiatives to promote walking and encourage the use of smarter travel options.

Specifically, TfL will be seeking to develop a joint walking incentive programme, ideally delivered in partnership with NHS London, to raise walking levels.

Furthermore, TfL is working with the London Boroughs and healthcare providers across London to align their activities to encourage walking and cycling and promote physical activity. NHS Health Checks across London will help to deliver the physical activity care pathway 'Let's Get Moving', and London Boroughs can assist in this process through working with their NHS counterparts. The borough LIPs provide an opportunity to align borough objectives and spending plans to help achieve NHS goals of increased physical activity through walking and cycling.

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[15] Step2Get Feasibility Report, TfL, 2010

Further Walking Priority Initiatives

This section addresses the question posed by the London Assembly in relation to other work that is being planned to ensure that the proposed year of walking results in a sustained increase in walking in London.

TfL and partners have been developing a number of additional initiatives that encourage walking. These initiatives are briefly described below.

Olympic Walking and Cycling Routes
The Mayor is committed to making the 2012 Games the most accessible, inclusive and environmentally friendly games yet. In respect of transport, the aim is to ensure that every spectator travels to the Games by public transport, walking, cycling or park and ride services.

TfL and 2012 Host Boroughs are implementing eight new shared use walking & cycling routes leading to Games sites across London as part of the Mayor's commitment (through Policy 26 of the MTS).

These new routes (see Figure four) not only provide high quality, direct walking access to the Games sites that compliment the active travel focus for 2012, but will provide a legacy resource after the Games to facilitate walking throughout the south-east area.

All eight routes are due for completion by May 2011. Promotion of the routes, to highlight their presence and encourage local usage ahead of the 2012 Games will support the investment made.

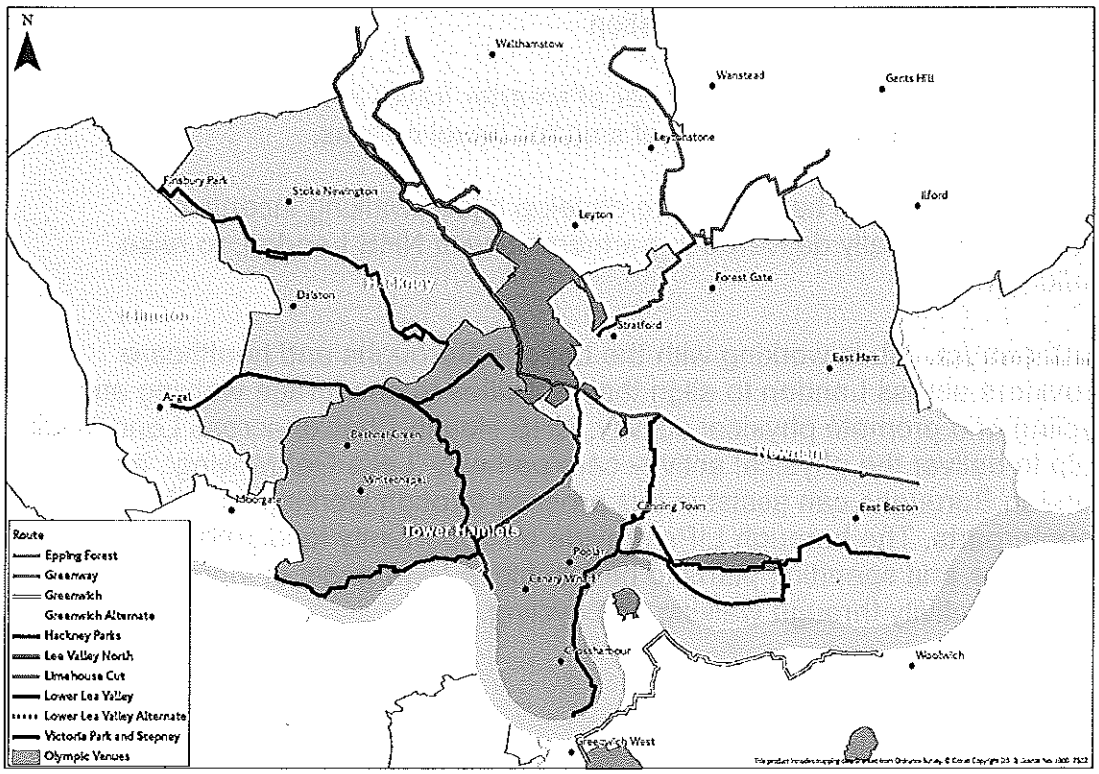


Figure Four: The eight Olympic walking and cycling routes

Year of Walking New Walking Measures

This section addresses the new initiatives TfL is planning to ensure that 2011 results in a sustained increase in walking.

Collaborative work by TfL and key walking partners, through the Walking Core Delivery Group (see Appendix Five for full membership), has identified a series of new initiatives that will support the objective of an increase in walking across London beyond 2011 and corresponding raising of the profile of walking sought for 2011.

These initiatives and all others set out in this paper are still being planned in detail and it should be noted that these proposals are being developed during a Comprehensive Spending Review (CSR) by central Government. This is likely to have a significant impact on the level of grant that TfL receives from the Department for Transport and this will therefore have a consequent impact on TfL's budgets in 2011/12 and beyond, the magnitude of which is currently unknown.

The CSR is due to report in late October 2010 and all existing and new walking proposals outlined in this submission will need to be reviewed in light of this. TfL and 2011 Year of Walking partners will look to find alternative sources of funding wherever possible to allow these new and ongoing measures to progress.

Working with public sector partners such as NHS London and the Department of Health is one way of maximising our impact and making better use of resources. TfL is already closely involved in NHS London's *Go London* campaign to promote physical activity in the run up to the 2012 Games, and liaises closely with NHS London to identify opportunities for joint working. For example, in 2009, TfL worked with NHS London in promoting its 'Think Feet First' campaign. Private sector sponsorship is another way of levering in additional funding for walking, as successfully used by cycling for Sky Rides participation events and the Barclays Cycle Hire project.

Sponsorship and joint working are likely to prove important in future in helping to support the deliver of a number of the walking proposals outlined below. It should be emphasised that these are provisional programmes which are still in concept development and have not been formally agreed.

Concepts in Development

- *Joining in the National Walking Day & Change4Life campaign*
  An annual day celebration of walking, currently linked to the Department of Health's 'Change4Life' campaign across the UK, is planned for 26 September 2010. Plans are in train to have London host a regional event. Support for the Day presents an opportunity to work with the Department of Health to utilise the existing Change4Life campaign throughout the 2011 Year of Walking. This approach build

links with the health sector, achieves common interests of supporting more walking and offers cost savings potential for TfL and the DoH. This initiative addresses MTS proposal 62.

- *Summer Streets events*
  These events could animate London's streets in summer – the equivalent of Paris' 'Plage' (summer beach initiative) or New York's Broadway closure to motor traffic, since replicated on other streets (Figures five and six). These events would aim to be low cost, demonstrating how simple measures (e.g. road closures and portable street furniture) can temporarily transform the urban environment, encouraging residents to explore and enjoy parts of the Capital on foot. The aim of these events is to showcase London as a liveable city. This initiative addresses MTS proposal 62.

- *Walk the Tube*
  Work is underway to identify potential pilot areas whereby crowding or congestion issues on the public transport network (especially the Underground) might be addressed by delivering mode shift of some passengers to walking on key sections of the network. This initiative addresses MTS proposals 45, 61 and 62.

Figure Five: Example of a New York urban street makeover

Figure Six: New York temporary street closure

- *Make Walking Count Strategy*
  This will form a comprehensive strategy document that is supported by various partners to demonstrate the partnership approach taken to 2011 and beyond. The document will promote the activity that TfL and partners are undertaking but also highlight the benefits of promoting walking and new initiatives. The document will be distributed electronically to share amongst partners and reduce costs. This initiative addresses MTS proposal 62.

Partnerships and stakeholders

This section addresses the question posed by the London Assembly in relation to partner organisations that TfL is working with on initiatives to encourage more walking.

TfL is working with the following partners on initiatives to encourage more walking in London.

- CABE Space
- City of London Police
- Crossrail
- Department of Health
- Design for London
- Living Streets
- London boroughs & sub-regional partnerships

- London Councils
- London Development Agency
- London Primary Care Trusts
- Mayor's Design Advisory Panel
- Mayor's Public Realm Delivery Group
- Metropolitan Police
- Natural England
- New London Architecture
- NHS London
- Olympic Delivery Authority
- Olympic Legacy Company
- Open City
- Ramblers
- RIBA
- Sustrans
- The Royal Parks
- Urban Design London
- Walk21
- Walk England

Appendix One

MTS Walking Proposals

Proposal 45
The Mayor, through TfL and working with partners will....improve walking and cycling facilities at, and on routes to, public transport stations and stops.

Proposal 59
The Mayor, through TfL, and working with the London boroughs, employers, schools, community groups, other organisations and individuals, will bring about a step change in the walking experience in London to make walking count.

Proposal 60
The Mayor, through TfL, and working with the London boroughs and other stakeholders, will improve the walking experience by enhancing the urban realm and taking focused action to ensure safe, comfortable and attractive walking conditions, including:
a) Development of the 'key walking route' approach, to encourage walking and improve corridors between local destinations where people want to travel, encapsulating squares and open spaces where appropriate (for example, London parks)
b) Providing direct, convenient pedestrian access (for example, with surface crossings) where appropriate
c) Street audits to identify pedestrian needs and guidance (such as pedestrian comfort levels)
d) Delivery of the seven Strategic Walk Network routes, separate from, but alongside the development of, Greenways
e) Training for those involved in the design and delivery of schemes that impact walking conditions
f) Enhancing pavement space for pedestrians and removing guardrails and other obstacles
g) Seeking to manage car access to residential areas, through physical or design measures, to create pleasant and safer walking environments
h) Tackling the fear of crime and feeling unsafe on the streets
i) Supporting major projects such as high street revitalisation through good quality public realm designed to support regeneration of small businesses and encourage local shopping and activity
j) Improving access, safety and security between the station and surrounding areas for pedestrians (and cyclists) to encourage active and smarter travel
k) Encouraging the extension of a network of linked green spaces (namely, the All London Green Grid)
l) Supporting developments that emphasise the quality and permeability of the pedestrian environment

Proposal 61
The Mayor, through TfL, and working with the London boroughs, developers and other stakeholders, will improve the quality and provision of information

and resources for walking, especially at stations, interchanges and in town centres by measures, including:
a) Extending Legible London to other areas
b) Creating an online one-stop walking resource to facilitate walking, linked to an enhanced Journey Planner with advanced walking options
c) Developing consistent wayfinding formats and making use of new wayfinding technologies

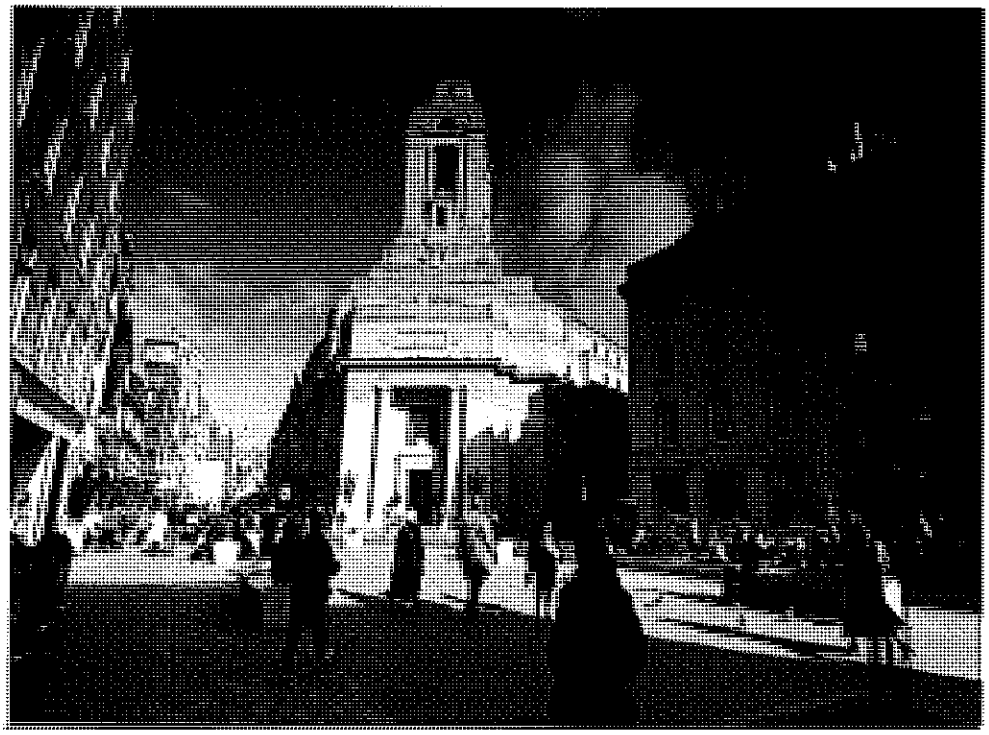
Proposal 62
The Mayor, through TfL, working with the London boroughs, developers and other stakeholders, will promote walking and its benefits through information campaigns, events to raise the profile of walking, and smarter travel initiatives such as school and workplace travel plans.

Appendix Two

Selection of completed Key Walking Route images:

Castle Street, Kingston

Long Acre, Clear Zone Corridor



Great Queen Street, Clear Zone Corridor

Redcross Way, Southwark

Appendix Three

Walking Delivery in London

Principal direct spend on walking in London has traditionally been through the Local Implementation Plan (LIP) process, whereby TfL allocates Mayoral funding to London boroughs and partnerships for transport schemes that are aligned to Mayoral policies and priorities in the MTS.

Until the end of 2009/10, walking had a distinct LIP budget, managed by TfL on an annual basis. This LIP walking budget was distributed amongst borough and partnerships through a bid based system, with funding allocations determined by bid quality, alignment to Mayoral and TfL objectives for walking and previous performance delivery. Through to 2009/10, levels of direct walking funding were:

Financial Year	Funding (£ millions)
2005/06	4.8
2006/07	5.2
2007/08	9.2
2008/09	9.2
2009/10	9.2

From financial year 2010/11 onwards, the entire LIP process has been overhauled. This change in LIP funding reflects a shift away from individual modal funding to holistic, cross-modal delivery, concentrated in borough identified locations on a larger scale. From 2010/11, boroughs, rather than TfL are responsible for deciding transport priorities and allocating LIP resources as required towards transport schemes. The individual LIP walking budget, along with other modal budgets has now been merged into wider cross-modal programmes.

The new LIP process makes analysing specific walking investment within a wider cross-modal delivery programme harder to break down and calculate but delivers significant benefits for boroughs and TfL. The new process provides boroughs and partnerships with greater freedom to focus on delivering borough agreed and local priority cross-modal outcomes. Moving away from annual to multi-year funding and delivery structures reduces pressure on boroughs and frees them to focus on outcomes. The revised programmes also ensure less bureaucracy for both TfL, boroughs and partnerships. By merging smaller, disparate programmes, fewer but larger cross-modal schemes and interventions are being developed and delivered that deliver more impact and positive transport improvements for more Londoners.

It should be recognised that indirect walking investment through TfL, boroughs and partnerships also occurs through projects outside LIP, such as bus, tube and rail station improvement programmes (e.g. London Overground & DLR), town centre regeneration projects and events such as the 2012 Games.

Appendix Four

Crossing facility monitoring data

A brief overview of 3 assessed crossing facility schemes is provided below, showing that the majority of standalone crossing facilities do not by themselves increase levels of walking trips:

Bessborough Road, Harrow
A new staggered signal crossing facility for pedestrians to cross a busy local road saw a post scheme[16] 1.3% increase in pedestrian numbers using the new facility.

Petersham Gate, Richmond
A new straight-across signal facility for pedestrians was provided to access Richmond Park. After the scheme had been implemented, a 1% increase[17] in pedestrian numbers crossing the road was observed.

Carlyon Road Footbridge, Brent
This scheme saw construction of a widened footbridge and new access ramps at this location that improved access across the Grand Union Canal for pedestrians and cyclists. Post scheme monitoring[18] indicated an average decrease in user numbers (pedestrians & cyclists) of 2.6%.

[16] LIP Walking 0708 outcome monitoring report, Colin Buchanan, 2009

[17] LIP Walking 0809 outcome monitoring report, Colin Buchanan. 2009

[18] BSP Walking 0607 outcome monitoring report, Colin Buchanan, 2007

Appendix Five

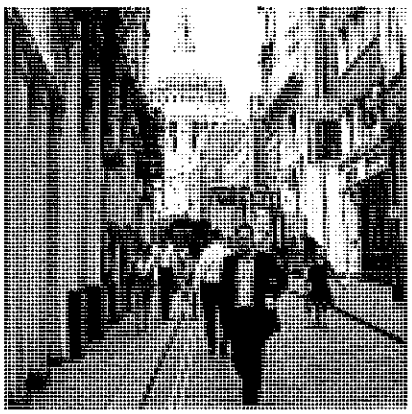
Walking Core Delivery Group membership as at August 2010

- Clear Zones Partnership
- Greater London Authority
- Living Streets
- London Borough of Brent
- London Borough of Hillingdon
- London Borough of Lambeth
- London Borough of Redbridge
- London Borough of Southwark
- London Borough of Tower Hamlets
- London Councils
- London European Partnership for Transport
- London NHS
- Ramblers
- Seltrans Partnership
- Sustrans
- Transport for London
- Walk England

London Pedestrian Routemap
Encouraging walking in London

A, B
The City of London.

C
London Pedestrian Routemap



A

B

Aims

The first aim of the London Pedestrian Routemap is to encourage walking in London. It does this by providing a simple, memorable picture of key walking routes in the Capital. At present there is no such map. The Routemap shows how key places connect by straightforward routes of varying character.

A further aim of the map is to highlight strategic opportunities for improving London's key walking route network. These opportunities have been identified through careful analysis of London's public realm.

Research foundations

The map is based on extensive research into walking patterns in London. This research has two aspects: first, an understanding of where people walk and second, an understanding of why people choose to walk where they do.

Information on where people walk has been gathered through numerous survey exercises over many years, conducted on behalf of Space Syntax's public and private sector clients and assembled into a single evidence base using "GIS" technology. Key findings include:

- despite the presence of heavier traffic flows, people tend to walk more on London's main streets

- pedestrian flows at lunchtime are typically higher than pedestrian flows in either the morning or evening rush hours

- there are typically more women than men walking in central London and more non-tourists than tourists, even in the heart of the capital

- peak flows for different users occur at different times of the day; for example, the peak period for older people is late morning while that for tourists is late afternoon.

Information on why people walk where they do comes, in the main, from the 25-year programme of academic research at University College London, undertaken by Professor Bill Hillier and his colleagues in the Space Syntax Laboratory. Key findings include:

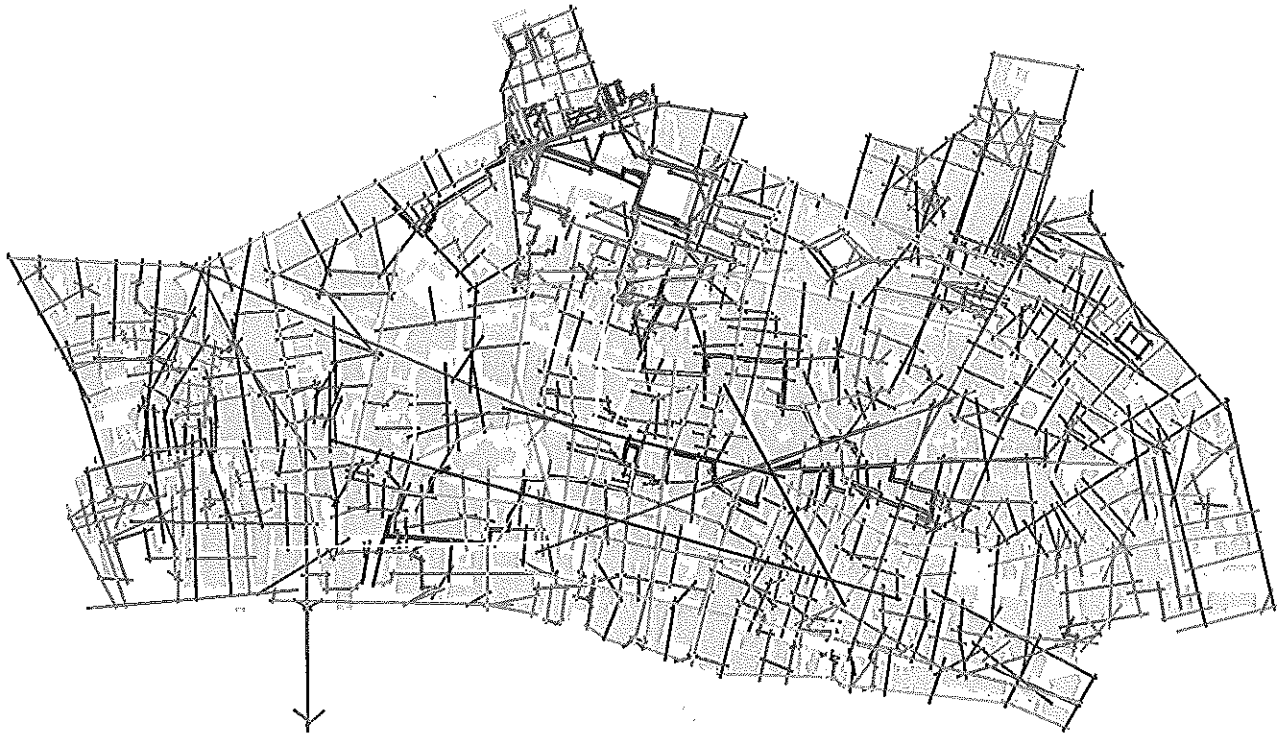
- people are sophisticated "readers" of the public realm

- although each person makes individual choices when walking, these choices tend to follow consistent patterns

- people prefer safe and convenient routes

- people tend to select simpler, more accessible routes than more complex, less accessible ones

- route complexity can be measured objectively through computer-based analysis of London's street network and, by doing so, a hierarchy of major to minor routes can be established.



c

Methodology
The London Pedestrian Routemap has been generated in the following way:

Step 1
London's pedestrian walking network has been analysed objectively using "spatial accessibility" software (above) developed by the Space Syntax Laboratory at University College London. This software has been tested in academia and in practice over nearly 30 years.

The most accessible routes have been extracted from the analysis to form the basis for the Routemap: a simplified picture of key walking routes in London.

Step 2
The set of most accessible routes has then been subdivided into a series of "character routes", to introduce a further level of simplification and recognition. Each route has been "themed" according to its local context and/or geographic position in London.

Step 3
The geometry of the overall network has been mildly simplified to facilitate memorability and recognition. This simplification has, however, retained the overall geometry of London's major route network – the curve of Regent's Street; the arch of the Aldwych and the bend in the Thames at the South Bank Centre – as these features are recognisable to users.

Step 4
Key locations – major buildings and public spaces – have been picked out and labelled to provide regular "place checks" for users.

Team London Bridge response to:
Southwark Council Bankside, Borough and London Bridge Draft SPD

This is the formal response of the London Bridge Business Improvement District - also known as Team London Bridge (TLB) – to the Southwark Council Bankside, Borough and London Bridge Draft Supplementary Planning Document (SPD). The response is structured in two parts:

- LONDON BRIDGE PRIORITIES
- DETAILED RESPONSE TO SPD SECTIONS

LONDON BRIGDE PRIORITIES

TLB represents over 250 businesses operating in the London Bridge area. Our comments are representative of the work we carry out as a BID ensuring business objectives for the area are met and the business investment (£750,000+ capital per annum) through the BID levy is well spent.

Due to the change in the economic climate over the past two years businesses have naturally found the trading environment challenging and the vast majority do not anticipate a major change in the next financial year. However even in the current situation we are able to confirm the majority of businesses are still happy to support a BID, ensuring this additional investment to the area.

Feedback from the businesses who trade in the London Bridge area shows that the state of London Bridge station (underground, rail, pedestrian, and bus) and the surrounding streets is the biggest concern for the business community regarding their continued growth and investment in the area.

TLB has identified four general themes that the business community would like to see prioritised within the SPD: These four priorities are the development of the London Bridge area as:

1) **a world class transport interchange** with:
   a. a world class London Bridge Station
   b. the area wide implementation of Legible London
   c. a world class Thames River transport interchange and river service

2) **a bustling retail destination** where there is:
   a. a significantly increased retail offer
   b. a transformation of Borough High Street and Tooley Street into true high streets
   c. active mixed use shop, building and tunnel frontages

3) **a pedestrian focused public realm** that:
   a. provides a world class pedestrian infrastructure in and around London Bridge Station
   b. transforms the historic railway tunnels to better link Tooley Street and St. Thomas Street

4) **famous for the redevelopment of its historic railway arches** because:
   a. Crucifix Lane, Holyrood & St. Thomas Streets arches have been developed as opportunity sites

TeamLondonBridge
improving our district

A world class transport interchange

London Bridge Station

- London Bridge Station, which services over 42 million people a year and serves as a gateway for both Southwark and the City of London, is not fit for purpose. The re-development of the station is key to the continued growth and success of London Bridge, Bankside and Southwark as a Borough. Alongside increased rail capacity, successful connectivity to the tube, bus station and adjacent streets is the key measure of success. The station must knit seamlessly with Tooley Street, Duke Street Hill, Borough High Street, St. Thomas Street and Bermondsey Street. Further to this these streets must be redesigned where necessary to facilitate significantly increased level of pedestrian movement.

- At present, it is not clear whether the scheme that gained planning consent in December 2000 will be developed. It is essential for all stakeholders to stress the value to DfT and Network Rail of both the rail capacity upgrade and connectivity to other means of transport.

Legible London

- The area is not well signed (a London wide problem) and wayfinding is difficult. It is essential that signage in the public realm be improved to encourage walking. As such TLB strongly supports Legible London as a tried and tested standardised signage system for London. Southwark Council, Network Rail, developers and other stakeholders must be encouraged to implement it. Due to the amount of street clutter within the area this scheme needs to be accompanied by the comprehensive removal of street clutter.

Thames River transport

- The SPD needs to recognise the future potential of river transport services and their need for world class docking and pier facilities at London Bridge. We would also encourage Southwark Council to campaign for a more frequent, high quality and affordable Thames Clipper service. Awareness and support initiatives are needed to encourage businesses, tourists and residents to use these services.

A bustling retail destination

Increase retail offer

- Given the number of people passing through London Bridge Station, the burgeoning population of local officer workers, the growing residential community and the increasing number of tourists London Bridge has an extremely poor retail offer. This is already the case in comparison with the majority areas in and around London's mainline stations and will be exacerbated by continued growth. The lack of retail is, after the very poor current condition of the station, the major complaint from businesses in the area. TLB strongly supports explicit planning policy support for an increased provision of comparison retail.

Transformation of Borough High Street and Tooley Street into true high streets

- TLB and business community wants to see Tooley Street transformed into a mix-use High Street type environment and a physical and economic transformation of Borough High Street worthy of the historic importance of London's oldest street.

Active Street Frontages

- We would like the SPD to go further in its call for active street frontages by recommending active frontages in the arches and tunnels below the railway lines on Bermondsey Street, Shand Street, Barnham Street and Weston Street. This would encourage activity under the arches ensuring people felt safe and comfortable accessing and linking through.

A pedestrian focused public realm

Pedestrian investment

- The pedestrian environment on Tooley Street, Duke Street Hill, St Thomas Street and Borough High Street is currently heavily congested and run down in places. The planned world class developments at the Shard and London Bridge Station will bring further congestion and pressure on to this creaking pedestrian infrastructure. The SPD needs to recognise that very significant capital and ongoing revenue investment is needed to bring the pedestrian environment up to world class standards.

Railway tunnels

- While Southwark Council has completed some excellent work on cleaning and lighting the tunnels under London Bridge this is just a start. We continually receive feedback that local workers, residents and especially visitors will not venture south through the tunnels due a continued poor and intimidating environment, a fear of crime, poor signage and a lack of people and businesses. This hinders the knitting together of the world class river front with the historic and bohemian Bermondsey Street neighbourhood. The SPD should recognise the historical significance and industrial splendour of the railway arches as sites fit for outstanding lighting design, historically focused art installations and the opening up of the internal arches for creative businesses and industries.

Redevelopment & restoration of London Bridge's historic railway arches

Railway Arches as opportunity site

- The railway arches and viaducts on St. Thomas Street, Crucifix Lane, Holyrood Street and Druid Street are part of England's unique industrial heritage and should be restored to their former glory. Further to this the railway arches and the adjacent public realm provide an amazing series of development opportunities that should be explicitly detailed as such in the SPD. Sensitive development would help bridge the north - south divide, help balance the corporate feel of More London with the historic character of Bermondsey Street, deliver much needed new retail opportunities and spread the wealth and opportunity east from London Bridge into Bermondsey proper.

DRAF - DETAILED RESPONSE TO SPD SECTIONS

2. THE STORY OF BANKSIDE, BOROUGH AND LONDON BRIDGE

2.3 A part of London and Southwark's success

- Due to the More London development which houses some of the largest employers in Southwark, the Cottons Centre and 1 London Bridge we would recommend Tooley Street be added as a major street for employment and business wealth.

3. WHAT WILL BANKSIDE, BOROUGH AND LONDON BRIDGE BE LIKE IN THE FUTURE

3.2 Bermondsey village

- Pg. 19 notes that "Snowsfields will be improved as a local neighbourhood shopping area". As TLB funded the remodelling of the Snowsfields shopping parade we very much welcome further investment to this area. Careful consideration is needed to protect the Victorian heritage of the retail units.

4.1 LAND USE AND ACTIVITES

4.1.1 Retail

- Very pleased (Figure 10) that all of Weston St, Snowfields and St. Thomas St are deemed appropriate locations for active frontages. Guy's Hospital is bound by these streets and currently presents an anti-urban and intimidating pedestrian environment. Rather than acting as an integrated enclave enmeshed within the fine grain of the medieval street pattern Guy's stands fortified and acts as a barrier to local movement.

- Active frontage is not deemed suitable for the railway tunnels. We feel this is a missed opportunity for Bermondsey St, Shand St and Barnham St tunnels. Currently these tunnels are a hindrance to north-south movement in that a significant number of people find them intimidating. Introducing active frontages would help counter this fear of crime and would allow the development of interesting class A and D use.

- "Developers should work with the local community and retail businesses to secure uses that provide services to local residents". As per recent discussions as part of the Southwark Living Streets "Vision for Borough High Street", which TLB fully supports, it is possible to go further than this and proactively work with property owners and the development community to develop a distinctive retail draw for the area. Two ideas. (1) Build upon the world famous Borough Market and develop ancillary culinary retail units and services on Borough High Street. These might include delis, food bookshops, cooking schools, kitchen appliance stores etc. (2) Build retail and service sector linked to the excellent medical and educational facilities at Guy's Hospital and King's College London. Medical book shops, medical equipment shops, chemists, dentists etc. The development of Marylebone High Street is a model for this approach.

4.1.2 Restaurants, cafes, drinking establishments and gaming premises

- TLB supports a diverse cafe, pub, bar and restaurant offer in the area and supports the proposals for A3, A4 or A5 uses. Further to this though any increase in the provision here must be linked to increased local policing and street cleaning services. We are in danger of replicating the situation in the West End in the 1990s when the increased amount and extended hours of drinking premises overwhelmed local services and led to deterioration in the offer of central London.

4.1.3 Business space

- Given the unique and extensive historical legacy of railway arches across the SPD area we recommend that greater consideration be given to their future use and potential than that they "should continue in active use for range of uses including small business space and light industrial uses". Of particular interest to Team London Bridge are the opportunities afforded by the arches on:
  - Druid St - where their use and attractiveness could be linked to St. John's Church Yard
  - Holyrood St – possible cultural, A3 or funky retail – balancing the corporate approach in More London
  - Crucifix Lane – as per Holyrood St.
  - Bermondsey St tunnel – see comments for 4.1.1 above.
  - Shand St tunnel – see comments for 4.1.1.
  - Barnham St – see comments for 4.1.1.

- St. Thomas St – station development should respect the fine gain possibilities afforded by the arches.

4.1.4 Arts, cultural and entertainment uses

- The opportunity area is an "important location for arts, culture and creative industries" and continues to generate massive inward investment in the area. This should be explicitly acknowledged. It would be worth detailing and baselining the current cultural mix in the area. This will help measure the ongoing effect of development on the cultural sector that has been to the fore in regenerating the area.

- Our understanding of the regeneration of London Bridge Station will mean that the Southwark Playhouse, Shunt and the world famous SE1 Club will leave the area. We support planning policy that protects this level of cultural offer within the arch complex of the extended station.

- We strongly support the proposed location of the Southwark Local History Library and Cuming Museum to this the most historic area within the borough.

- Tower Bridge is an attraction in its own right with over 400,000 people visiting the exhibition and 5,000,000 tourists crossing the bridge annually. We would recommend Tower Bridge be listed as part of Southwark's attractions especially with its connectivity to Potters Fields Park and the new cultural facility that is planned for the Potters Fields sites. The inclusion of a "major new culture facility" is welcomed and we would encourage public consultation for the use of this cultural facility.

- Signage to both the station and other cultural attractions in the area are currently confused. As noted elsewhere, TLB support for the implementation of Legible London would solve this problem.

4.1.8 Community facilities

- This section neglects comment on the complete lack of public toilets in the area. This is a very important service provision given the tourist and visitor orientated offer of the river front area. This gap in provision particularly affects families with children and the older generation. The SPD needs to acknowledge the lack of provision and comment on resolving this in the future.

- This section neglects policy comment on the dearth of children's outdoor play facilities in the area. The provision made available to the millions of visiting families is almost non-existent. Such facilities would encourage visitor numbers to the area who would then spend longer in the area and spend more money here. These facilities of course would be availed of by local communities.

4.2 BUILT FORM & URBAN DESIGN

4.2.1 General principles and considerations - Focus for regeneration

- TLB support the following policy declarations:
  - "Tall buildings provide the opportunity to release land for new public realm opportunities and provide investment in the existing public realm. Tall buildings could help enliven St Thomas Street with new active frontages and uses, new public spaces and better links into the area south of the viaducts".
  - "New tall buildings can act as a stimulus for regeneration by unlocking the potential of an area and increasing its attractiveness for investment. At London Bridge, they can help revitalise the area south of the viaducts".

Public realm and movement

- TLB strongly supports the implementation of TfL's Legible London signage system throughout the area. The success of the scheme will also require the positioning of the street maps and signage within private estates. It is also essential that Legible London be included within the London Bridge Station master plan.

- We strongly support the aim of "improving links between the opportunity area and Elephant and Castle" so as to "help spread the benefits of regeneration in each area and improve access to shared infrastructure and facilities". Unfortunately there is no detail as to how this might be achieved.

- Much of the problem is that the ideal desire lines or natural paths that exist between key nodes and landmark sites are effectively blocked by the imposition of post-war housing estates into the urban fabric.

- We would like to note the importance of four future movement routes:
  - Borough Tube through to Bermondsey Square via Long Lane.
  - Borough High Street to St. Thomas Street / Bermondsey Street via Newcomen Street and Snowsfields. This route continues through to Union Street, Southwark Tube and The Cut and is particularly pleasant for pedestrians and cyclists.
  - Tower Bridge Rd through St. John's Church Yard to Tooley Street, Potters Fields Park and the riverfront.
  - Bermondsey Street to Tower Bridge Road via Crucifix Lane.

Figure 17: Existing movement patterns in Bankside, Borough and London Bridge

- Figures 17 depicts the current 2010 movement patterns. Given the opening up of a southern entrance to Blackfriars Station, the building and occupancy of the Shard, the completion of the new / enhanced London Bridge bus station and the redevelopment of London Bridge Station (with very significant new entrances to St. Thomas Street) this movement pattern will significantly change by 2017. All elements of section 4 need to take this into consideration.

Better Bankside SPD Response

- TLB supports the vision for the public realm as set out in the their response to the SPD. In particular we support their Bankside Urban Forest urban design approach to that area. To quote:

  - *The Council needs to have a clear vision of how the public realm will adapt to cope with extra footfall and pressures future developments will bring in terms of new residents, employees and visitors to the area. It will also need to address how residents, employees and visitors will move between the SPD area and neighbouring areas such as Elephant & Castle, the City of London and Waterloo, and that the SPD needs to plan how links will adapt to improve physical links to these wider areas in coming years. The Bankside Urban Forest framework tries to address this by looking at the area as a whole and highlighting how key routes can be strengthened within the area and to surrounding areas*

  - *Better Bankside welcomes the references to Bankside Urban Forest within the document. The Bankside Urban Forest study was commissioned originally by the Council with a range of local stakeholders, and we would encourage the Council to extend their commitment to the Forest vision by embedding key principles in the SPD for the area. We suggest that rather than seeing Bankside Urban Forest as a mechanism for implementing public realm improvement projects in coming years, that it is also adopted a key tool for aiding the planning process in terms establishing a vision of how the public realm will adapt incrementally over time to be fit for purpose for both residents and visitors to the area (including commuting employees) as new developments unfold over the life of the SPD.*

4.2.2 Strategy for London Bridge

General comments

- This section neglects comment on the complete lack of public toilets in the area. This is a very serious service provision given the tourist and visitor orientated offer of the river front area. This gap in provision particularly affects families with children and the older generation.

Public Realm

- We very strongly support the vision of "revitalising St Thomas Street by improving the streetscape and bringing active frontages to the street. This will include improving the railway archways and using them for active retail and entertainment uses".

- The SPD needs to be much stronger in this area by including Crucifix Lane, Holyrood Street and Druid Street in the above ambition. These historic arches offer a fantastic opportunity to provide some of the retail usage that the area lacks set within magnificent set of architecturally significant railway arches that both balance the 21st century landscape of More London and provide an ideal transition to the 19th urban realm of Bermondsey Street.

- Traffic should be slowed to 20mph in this area.

Improved station environment and access

- "Creating more space for pedestrians around station entrances, through street widening, pedestrian priority, reducing street clutter and improving crossings of Tooley Street and St Thomas Street". This is vital given the very large increase in pedestrian numbers, across a 24-hour day. Current and future improvement in pedestrian infrastructure are needed at:
  - Both formal and informal pedestrian crossing point on Duke Street Hill accommodating movement from London Bridge Station to the City.
  - London Bridge itself at the pinch point (pictured) between the present Southwark licensed market stall and the City of London Griffin monument.

London Bridge pedestrian congestion.

4.2.6 Strategy for Bermondsey Village

General comments

- As noted in the comments on London Bridge the historic complex of railway arches on Crucifix Lane, Holyrood Street and Druid Street are not given due consideration. The high quality development of these arches and the transformation of the urban realm in which they are set from a car to a pedestrian and cyclist orientated environment is critical helping bridge the world class of the riverfront with the historic charms of the Bermondsey Street area.

- Consider the provision of a regular market on Bermondsey Street and within Bermondsey Street tunnel.

4.2.8 Strategy for Borough High Street

General comments

- TLB supports the vision for Borough High Street as recently outlined by Southwark Living Streets. Further to this TLB would urge Southwark Council to develop a dialogue with the landowner and developers along BHS, as has happened in Marylebone High Street, so that the development of retail and office spaces matches high quality investment in the public realm.

4.3 Traffic and transport

General comments

- Sort junction at Tower Bridge Road and Queen Elizabeth Street. Death trap.

- Slow traffic to 20 mph on all local streets with particular traffic calming attention to be paid to Druid Street, Crucifix Lane and St. Thomas Street.

- Sort Junction of Borough High Street and St Thomas Street

5.1 LONDON BRIDGE STATION

General comments

- No mention of public toilets.

- Support significant increase in retail offer in the area via the station development.

- Integrate Legible London.

- Use station development as an opportunity to open active frontage onto Bermondsey Street tunnel.

- Use station development as an opportunity to develop an urban design strategy for the redevelopment of the arches and public realm on Crucifix Lane, Holyrood Street and Druid Street.

- Consider the relocation of the taxi rank on Tooley Street to Battle Bridge Lane so as to enable pavement widening at a location that will have to cope with a significant increase pedestrian congestion.

- Retain the cultural mix in the station as currently offered via the Southwark Playhouse and Shunt.

5.2 GUY'S HOSPITAL & KING'S COLLEGE

General comments

- Support the retention of the Greenwood Theatre or similar cultural provision.

- Strongly support the key Movement proposals and need to develop active frontages at St. Thomas Street, Weston Street, Snowsfields and Newcomen Street.

- Explicit mention should be made of the need to remove car parking in the 18th century hospital entrance on St. Thomas Street and replacement with appropriate public realm landscaping and greening.

5.2 COLECHURCH HOUSE

General comments

- Consider removal of the shantytown market stalls on London Bridge adjacent to Colechurch House.

- Support the provision of tourist information facility within any new development on site.

- Future developments should be designed in such a way as to minimise the cannon and over-shadowed quality of Tooley Street on the north.

Please send confirmation of acknowledgement of above response to

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