

Masterplanning Checklist

for Sustainable Transport in New Developments

Executive Summary

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



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.