

Aspirations for new homes mirror many aspects of modern society thinking. This envisages more physically active and less isolated lives, reduced congestion on the roads, whilst at the same time promoting a low carbon future. But what are we really building? Which new developments live up to our expectations? Are there some places that have got it right? Transport for New Homes is a mostly field based project visiting the new homes being built.

Transport for New Homes

**PROJECT SUMMARY AND
RECOMMENDATIONS
JULY 2018**



TRANSPORT FOR NEW HOMES

Foundation for
Integrated Transport



Transport for New Homes: Introduction

Everyone agrees that we urgently need new homes but we also want to build good places to live. The literature and planning documents about new homes emphasise community with less individual isolation, more active life-styles, availability of local services and a green and pleasant environment. For transport the visions presented do not show new residents getting into cars and being stuck in traffic, but rather depict people cycling and walking as part of their everyday lives. Bus and rail services are often featured as providing an alternative to the car.

These aspirations for new homes mirror many aspects of modern society thinking. This envisages more physically active and less isolated lives, reduced congestion on the roads, whilst at the same time promoting a low carbon future. But what are we really building? Which new developments live up to our expectations? Are there some places that have got it right? Transport for New Homes is a mostly field based project visiting the new homes being built.

Our funding

The Transport for New Homes Project is funded by the Foundation for Integrated Transport, with help also from the RAC Foundation. The Foundation for Integrated Transport was formed in 2014 to make transport better for people and the environment. For more information, see www.integratedtransport.co.uk



What does the project involve?

The project involves visiting a wide range of new homes, from large scale greenfield housing on farmland, to urban schemes on brownfield sites. We have visited places that funded new major roads and bypasses, one place built around rapid transit and a large area of housing served by a new station. We have been to new homes built a decade or more ago and new areas much more recently constructed. In the Netherlands we visited whole new suburbs built around new railway stations, rapid transit, cycling and walking. This gave us the opportunity to compare how things are done in the Netherlands and in the UK. It is important to use our land wisely since the number of people per square kilometre in England is higher than most European countries at 420 people per km². This compares to the Netherlands at 503 people per km² and Belgium with 372 people per km²*

For the places visited we:

- Tried out public transport, and cycling and walking routes on our way to and from the development
- Took photographs and spoke to residents, shop keepers, and others
- Compiled profiles of each development including planning history, key statistics, developer contributions, number of affordable homes, bus and rail aspirations and provision, traffic forecasts.
- Charted where you could walk or cycle to, and where you could get to by train, bus or rapid transit
- Looked at congestion on the roads nearby and into major employment areas.

Where we visited:



Visits to the Netherlands

We visited Houten and urban extensions to Utrecht – Vleuten and Leidsche Rijn, as well as Almere and Eindhoven to see how the city was re-inventing itself around walking, cycling and public transport. A visit to Lund in Sweden showed yet another model of development.



*Source: Eurostat, 2015



What did we find?

We have summarised our findings to date in terms of six themes which are colour-coded in the following sections. For each theme possible ways forward are suggested.

- Theme 1 *Car-based living*
- Theme 2 *Homes not properly connected for pedestrians, cyclists or buses*
- Theme 3 *Public transport opportunities missed*
- Theme 4 *The importance of mixed land use and integrated transport*
- Theme 5 *The advantages of the new urban quarter*
- Theme 6 *Insights from the Netherlands*



Theme 1: Car-based living

Our visits to new homes on green-field sites revealed a variety of architectural styles and layouts. However, especially in the case of recently constructed developments, the housing we saw was car-based. There were exceptions, notably Trumpington Meadows near Cambridge and Poundbury in Dorset. The urban developments also fared much better, being orientated around sustainable modes. We used the 2011 census information to analyse car use for commuting and found a particularly high percentage of people going to work by car in the new 'fringe of town' housing. Many developments including those near Didcot, Corby, Swindon, Trowbridge, Taunton, Northampton and Newcastle, were advertised on the basis of easy access to major roads. The new trend is for the government to co-fund new roads with the developer on the back of large new housing areas. The new homes we visited were also often built in proximity to car-based retail, out of town business parks and fringe of town leisure facilities – almost a US-style idea of planning.

Housing away from jobs

We spoke to planners to better understand the increasing popularity of this model of dispersed housing in locations that were bound to be car-based. They explained how the government was anxious to get homes built, but the targets given to local authorities to build these homes do not take into account public transport or indeed proximity to services and employment. In essence, the targets are devised without geography. The result is that a rural or semi-rural authority may have to locate thousands of new homes, year upon year, in relatively isolated locations away from large urban centres, away from a network of good public transport, away from the

places that people need to travel to. New roads and roundabouts that accompany house building form the skeleton for car-based development of all kinds.

Housing targets and 'deliverability' trump all

The situation is further compounded by the choice of site for building. Landowners are often keen to sell farming land for housing. Developers do deals with landowners to gain 'options' on a number of fields and these are pushed forward as sites for residential development. With the pressure on to locate sites to meet the five-year housing land supply that local authorities must have ready according to the National Planning Policy Framework (NPPF), the fields that developers are promoting are selected by planners on the basis of 'deliverability'. Transport assessments are done later, but building new homes in fields so remote from good public transport networks, major employment hubs and services, means that sustainable transport options are perceived as limited from the start and too difficult. The transport assessment instead therefore focuses on the impact of so much new traffic on junctions and sections of roads nearby. Developer funding then goes into road capacity to enable new car-based estates to be built.

Our research of over a hundred urban extensions and greenfield estates revealed that transport infrastructure investment was dominated by added road capacity. Bus infrastructure was rarely given significant funding. Only one new station was delivered and that after many many years of lobbying by a tireless local authority.



Traffic created by building in the wrong place

One of the consequences of car-based development is the generation of traffic. Using Google Maps you can look at the road network and see where the traffic jams are found. We animated Google maps with traffic switched 'on' to condense the rush hour down to under half a minute.

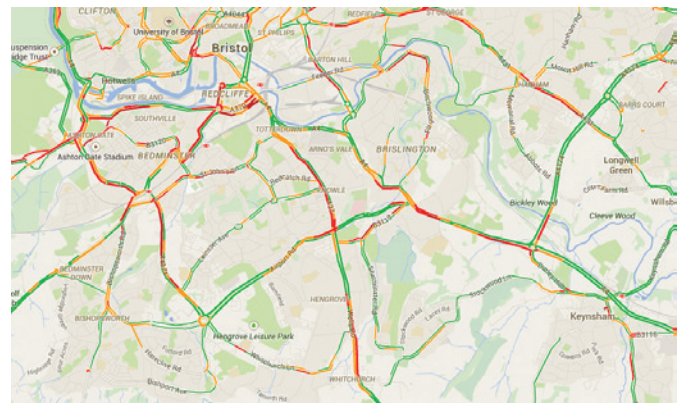
We saw the congestion move in waves from junction to junction, revealing the network nature of bottlenecks. Many roads between new homes and the urban areas where people work were already full of traffic. It was also apparent that long distance traffic was being held up by local commuter traffic and that this trend is likely to get much worse if we continue to build as we are.

What about building more roads to compensate? It is impossible to unblock the road network by attending to 'pinch points'. It is the whole road network that is becoming widely congested around our towns and cities, aggravated by car-based out of town construction. A transport assessment may show two or three thousand new new car journeys a day emanating from a large area of new homes. However the cumulative effects of many new developments across an area is never modelled. Spending public money on road building in conjunction with new homes and using scarce developer funds for the purpose, is likely to make matters worse. It actually encourages more distant commuting by car. It is rare that new roads are built to access new housing by bus or by foot – the road opening up land in the Taunton Firepool area was one of the few that was multifunctional.

In some cases we heard that locations for new homes were actually chosen because they could fund road capacity – the other way round from choosing a site

and then sorting out the roads. We were surprised to hear that DfT funding is available specifically in this context. An example is the Ashton Park urban extension of 2,700 to the town of Trowbridge in Wiltshire. Here, improvements to the A350 to add capacity and access to the new development for commuters are to be funded to the tune of £8.75 million by the government's Local Development Fund, plus £5.5 million *Housing Infrastructure Marginal Viability* fund from the Department for Transport. This will be topped up by the developer contributing £11.5 million, a total of £25.75 million for 2.4 km of new single carriageway and new roundabouts to provide access to the new homes. It is pertinent to note that bus priority is not part of the planned new road system.

We saw estates that didn't connect to anything other than the road network.



How can we build our way out of congestion? Surely we need a different approach to land use and transport than using new greenfield homes to finance extra road capacity while at the same time building car-based estates?



Minimalist public realm dominated by the needs of the car

We looked around new housing areas on foot. The places we saw ranged from new homes for the very affluent to those for ordinary people who could not afford the high prices in more traditional and sought after suburban areas. In terms of recently built estates what struck us immediately was how barren many streets were in terms of greenery, particularly in developments targeted at average buyers rather than those that could pay very much over the odds. In many places the homes in the residential parts of the development area were so closely packed together that it was hard to see where trees, hedges and green areas could be planted. The walking environment as a consequence, was depressing.

Car parking taking over

Whilst residential streets were practically devoid of greenery the sheer amount of area given over to road access, driveways and parking was astonishing. With very few hedges, the dominance of brick walls and tarmac only added to the boxed-in feel to the public realm. The newer estates we visited seemed the worst on this count. Areas of affordable homes seem particularly badly hit. The homes looked small and closely packed and sometimes surrounded on all sides by parking. It is true that some parts of estates were left as open space – areas that flooded or couldn't be built on for other reasons. However, informal green areas in some parts of the development did not make up for the dreariness and impersonal nature of many of the residential streets that we saw. We did not feel encouraged to walk and certainly we saw very few people about on foot.

Bucking the trend - Poundbury

One place that bucked the trend in terms of a minimalist public realm was Poundbury. This offers a varied and green walking environment with urban trees and planted areas planned very early on, all part of an overall design and layout designed specifically for walkability. Affordable housing was pleasant and looked the same as market homes. The development at Taunton Firepool Lock also offered a better walking environment, as did Kidbrooke Village in London. Dickens Heath near Solihull and Allerton Bywater near Leeds were also much better.



This square had potential but didn't perform a community function. There were no people in it when we visited.



Parking spaces and lots of brick – a common feature in many residential areas of urban extensions.



Front gardens are often very small. The urban trees and grass verges of previous generations of suburbs seem to have vanished. For the pedestrian the walking environment often seems barren and boring.



Poundbury seemed much less dominated by car parking than other urban extensions.

Recommendations – Theme 1

Car-based living

Summary

- **We urgently need more homes but the places we are building are not sustainable development.** The NPPF makes it clear that we should be building places that engender healthy lifestyles and that we should encourage active travel. We are supposed to be building for a low carbon future. We are supposed to build around sustainable transport. Many of the places we have seen take us in exactly the opposite direction on all counts.
- **The public realm and layout of many recently built estates are being shaped around the car rather than sustainable modes.** Our visits have shown us how building new homes away from major urban areas and public transport networks brings us increased car-based living and streets depressingly dominated by tarmac and parking with very little greenery. In residential streets we saw 30-40% of the land seemed to be taken up by the needs of the car.
- **Despite crowded residential streets with small homes and limited greenery, the overall density of new build was often very low overall on greenfield sites.** 20 dwellings per hectare was common. This is because so much of a development area is taken up by land that can't be built on – flood plains and so on. We have seen by contrast, urban homes built as low-rise apartments with trees and greenery and orientation around sustainable transport, including buses. Such places have much higher density but are greener. They are much more suitable for serving by buses and for walking. The planning system is pushing us in the wrong direction, but why?
- **New homes located and advertised on the basis**

of access to the major road network and not the town centre. Many new homes are sold on the basis of easy access to the motorway and major road network anticipating that people will be commuting a long way. Local traffic slows down long distance traffic as a consequence. The town centre is less likely to be an important destination for new residents than how you can 'get out' onto the road network. Using animated Google congestion mapping we have seen how the rush hour now affects country roads with tail-backs at junctions. The problem is a network one. Extra capacity at 'pinch points' will not solve the problems. Public and developer funding - both scarce - are being wasted on adding road capacity to support new homes. A completely different model of construction is needed.

- **Life styles are becoming 'American'.** The car-based nature of many new developments we saw engendered US type life-styles, although in America the homes themselves are at least large with land surrounding them. With limited or even absent public transport, teenagers need lifts for many activities and have little independence in terms of going out. Older people who can't drive or parents at home with young children are stuck as there is little to do locally. We saw places that had hardly a soul walking during our visit. Even if you can afford the home, the question is: can you afford two cars and the expense of running them? What if you can't drive?



The way forward

- **Clarification of vision and requirements at policy level.** We need to be much clearer in the NPPF and Planning Policy Practice as to what we as a society want to achieve when we build new homes. Are we content with what we are building and do we ask where are things going wrong? Our mistakes need to be analysed and changes made to planning policy as a consequence. We need to learn from other European countries.
- **A more measured approach to the right location for new homes is needed.** We need to use geographical and economic analysis in deciding where to build rather than leaving it to a system of arbitrary targets. The current methodology for calculating targets for new homes for each local authority is based on continuing past housing trajectories rather than informed and data driven analysis including the transport needs of an expanding population. The current system ends up targeting rural or semi rural areas which mean hundreds of new car-based estates. Planners are under fantastic pressure to accept large sites offered by developers for the mandatory 'five year housing supply' and Local Plans assimilate these without putting down a funded public transport system or cycle network to pin everything together. Fields of houses often end up as car-based estates without much else to offer.
- **It is surely counter-productive to couple new homes with new roads.** It makes little sense to finance improvements to the strategic road network by using developer funds from housing estates that empty more cars onto them. To choose large sites for new homes specifically because they can finance road building is simply missing the point when it comes to long term spatial planning and transport combined. If new roads are built they need to be designed for bus priority and for bikes and pedestrians.
- **We are building car parks as much as new homes.** A change of direction would give us the opportunity to build more homes, less squashed together, with more greenery or perhaps more generously proportioned interiors. Areas of tree planting and small public spaces can emerge; formal parks can be provided. A better public realm is all part of a walkable and pleasant neighbourhood, creating places where people will want to live.



Theme 2: Homes not properly connected for pedestrians, cyclists or buses

An increasingly popular solution to the problem of 'where to put all these houses' and locate a five year housing land supply, is the urban extension or 'garden village' of a few thousand homes. Developers offer sites in greenfield locations and do all the master-planning and the construction – a kind of 'plug and play'. These places, as we have explained, are by and large car-based but our visits to this model of development also revealed another important flaw. Not only were homes often built on fields some way from the town, but even if they were next to other suburbs on the edge of town they typically didn't properly connect to the existing suburban streets. They tended to be isolated bubbles as opposed to new quarters of the town connected to the existing street network.

Planning in isolation

Planners explained to us that developer control over land does not extend beyond the red line bounding the development. The Masterplan goes up to the boundary. Without their own funds and capacity to buy land, it is hard for local authorities to connect the new homes with the right pedestrian and cycling routes. The situation is made worse by the severance effects of existing large roads, also found on the fringe of towns. An extreme example of this is Barton Park on the outskirts of Oxford, which is cut off by a busy dual carriageway. A pedestrian, cycle and bus link over the road is essential to connect the new homes but this is difficult to fund. At Taunton Garden City much of the new development is some way away from the town on individual fields which is logistically

problematic but typical of the development patterns we are pushing forward. Another angle is the tendency for local highways departments and councillors to see new housing as a way to deliver bypasses and link roads. Local authorities may even specifically allocate land for housing next to the roads they want to finance. When we visited the Castlemead urban extension in Wiltshire, we were amazed to see that it was bisected by a new bypass to Trowbridge to take the lorries out of town. Paradoxically new estates on greenfield land may not even be connected to villages nearby by safe walking and cycling routes.

Buses and the red line of the development

The development area on isolated fields may also be very difficult to serve by buses. Buses generally do best on suburban streets, serving a number of residential areas along a road stretching from the town centre to the suburbs, the housing areas like beads on a string. Imagine instead trying to design a bus route to reach into a number of new areas of homes on fields dislocated from the town. The logistical problems are very complicated, particularly when a number of road junctions are in the way without bus priority and bus lanes few and far between.

The isolated housing area far from any town, such as the latest 'garden village' concept is likely to be an extreme example of the disconnected community.



In Lund in Sweden, new homes are integrated with the existing streets on the outskirts of town. Notice also that there is much less space devoted to parking.



Rising up from the countryside, these new homes in fields in Wiltshire are not properly integrated into the existing town

Confusion between everyday and recreational walking and cycling routes

The red line of the development boundary represents the limit of developer control and in our visits this was clear to see 'on the ground'. The consequence is often a sudden lack of pedestrian connectivity – walking routes are cut - and a severe reduction in the quality of cycle routes. Allerton Bywater was one of the exceptions in that the Millennium Community was built in an old colliery site in the centre of the village and most of the local facilities serving the new homes actually served the whole village and were outside the site itself. Poundbury was another example of a much more integrated approach in that the development is connected to Dorchester along a suburban street with buildings along it rather than a distributor road or link road.

But what do you do as a planner when an urban extension is on fields separated from the town and not linked to it by conventional streets? A common idea is to send pedestrian and cyclists along routes through 'green infrastructure', for example the course of a stream or hedge-line where homes cannot be built.

Walking along paths through 'green infrastructure' is fine for a family stroll and in good weather. However such routes tend to be unattractive for using in the dark or by women or children walking alone. They are just not the same as walking on proper pavements along streets overlooked by houses, offices and shops, with cars going past. Where a series of new estates have been built we have seen roads connecting them US style, without pavements. We have also seen walking routes to the town centre that go along dual carriageways, across large roundabouts and through underpasses.



With new housing and its environs built for the car, pedestrians can find themselves walking to the shops and pub along roads without pavements .



Green infrastructure may not be safe for everyday use.

Recommendations – Theme 2

Homes not properly connected for pedestrians, cyclists or buses

Summary

- **Bounded by the red line.** Planners work closely with large developers to satisfy housing targets and meet the five year housing land supply. With little public money or control over land, they need the private sector to build not just the homes but the whole development. In many cases the red line of the site boundary is clear to see ‘on the ground’, because there are no residential streets or path links that cross it. In other cases, pedestrian and cycle infrastructure within the site is good, but once you leave the site boundary the quality of the routes rapidly deteriorates. This can deter residents from walking or cycling to the town centre or other local destinations, again resulting in car-based living.
- **Bubbles of development isolated.** In the case of development on a group of fields in the countryside, connecting the streets in the new estate to the streets of the existing urban area is difficult. The land between the town and the fields may not be owned by the developer or the existing pattern of streets on the edge of town is a maze of cul de sacs. Housing risks being built as isolated ‘bubbles’ of development.
- **Not safe in the dark or alone.** Where walking and cycling routes are provided, residents are not always given a choice of routes that they feel safe to use. Often the designated routes to key destinations follow paths across green areas left by the development where houses could not be built for various reasons. Such places are great for recreational walking routes but are generally not appropriate for all people on an everyday basis.
- **Hard to run buses when development is isolated.** With developments isolated from the main urban road network, serving by buses is not easy. Seamless infrastructure both within and outside the red line of the development needs a great deal of negotiation by planners and timely developer contributions.

The way forward

- **Change the way we select sites to build.** Local planners should be able to select sites adjacent to the existing urban area or sites that are at least linked to it by a main road that is able to function as a central bus or tram route and walking and cycling route into town. This should also have homes and businesses overlooking the pavement so that people feel safe.
- **A number of smaller sites including brownfield sites may be better than a single large one.** Planners need the power to choose places that can be connected into the existing urban area rather than be slaves to the pressures of the five year housing land supply to earmark large ‘deliverable’ sites.
- **Ability for local authorities to fund pedestrian and cycle links outside the development area is essential.** Greater power on behalf of planners is needed to acquire land and fund pedestrian, cycle and public transport links outside the site boundary. Local authorities should have a duty to ensure that enough links are in place, maintained to a sufficient standard, that new housing developments are integrated with the communities that surround them, and do not act as functionally separate settlements. The role of green infrastructure in terms of pedestrian routes and cycling needs careful thought – it is unlikely to be the right way to provide everyday routes.
- **Ask the bus experts early on.** The bus industry needs to be a statutory consultee at the Local Plan stage to advise on which parcels of land are right for buses and how services could run.



Theme 3: Public transport opportunities missed

Forced to use the car

There is much talk about door to door transport choices, active life styles, and a less isolated existence – health professionals realise that loneliness and lack of social interaction is fast becoming a problem with modern day life styles. We recognise that older people may not want to drive and others don't necessarily want a car in the first place. The same is true of the younger generation – society is changing. Public transport offers a sociable way of travel yet it gives independence and access to jobs, education, leisure, services and much more. It avoids the expense of owning and running a car and all the difficulties associated with parking. You walk to the bus stop or the station which is good exercise – what could be better? On the other hand people expect a quick journey and don't like waiting for a bus for very long.

On this basis we were interested in public transport to new housing developments. We wanted to see whether public transport was sufficiently modern, frequent and attractive that people would use buses, trams, and trains instead of cars, and whether this was practical.



Rapid transit stop in an urban extension in the Netherlands. Buses are truly segregated from other traffic in a tram-like system. Paying for buses is easy – there is a national smart card for all modes.



The Park and Ride from Trumpington was popular for visitors and used by residents of the new housing. However lots of parking is still provided for homes which are marketed on the basis of not only getting to Cambridge, but also the M11/A10.

Hard to attract bus ridership if estates are designed for the car

It wasn't just a matter of whether there were buses; it was overall presentation and use of the bus as the way to travel that interested us. We looked for fast routes into town and to business parks, integration with rail, and for assurance that buses did not cease during evenings and weekends. We wanted to know whether people were actually using buses. Many new builds looked so car dominated that this seemed questionable.

What we found for the large developments built close to large towns (such as Upton near Northampton and Great Western Park near Didcot) was that bus services were provided but it was obvious that the estates had been designed for the car and not for the bus. Sometimes roads were too narrow for buses; sometimes buses were relegated to distributor road

stops or only went through a small area of the estate or simply stopped at the entrance. In the Netherlands we saw new build designed around the bus with purpose built lanes within and beyond the estate, and stops well placed in the context of the public realm and walking environment. This model of planning doesn't seem to be adopted in England. It is as though greenfield housing is designed primarily for the car with buses and other sustainable modes tacked on. This is the wrong way round.

Urban extensions on the edge of smaller towns fared much worse than their counterparts close to large conurbations. This is because bus networks were much less well developed in the first place and because of local authority bus cuts affecting rural areas.

At Hampton (near Peterborough), Trumpington Meadows (near Cambridge) new homes had been built in conjunction with a very large bus park and rides.

Local rail - almost impossible to get new stations and services

Local authorities, Local Enterprise Partnerships and local MPs are keen to see new stations opened in combination with housing growth areas. In the Netherlands we saw a series of new stations for the suburbs of Utrecht and understood that new local rail services were all part of growing new places.

In England we found just one new area of homes with a station built and this was Cranbrook – a new town east of Exeter*. The station is just outside of town – about a 15 -20 minute walk from the homes, and without a bus service yet. On the east side of Exeter where there is a lot of traffic congestion, rail offers unimpeded progress straight into the city. The hourly service from Cranbrook is apparently already full and standing in the rush hour and more trains are needed.

Amazing patience

The account given to us by the local authority officers of the many, many years of patient preparation of business cases for the station, extensive and complex negotiation with Network Rail and other parties, filled us with admiration that they had persisted so long. It made us aware of the many barriers to delivery of local rail. Funding road capacity appears much easier.



Why is public transport not central to new urban extensions?

We saw in the Netherlands how local planners specified the detailed layout of a large new area of homes and were able to fund the necessary infrastructure including public transport. This was considered an essential and pivotal component of the development. In England by contrast, there is a lack of certainty that stations or even bus infrastructure or cycle routes will actually get built, let alone in time to be of use when the first houses are completed. Compare this to Houten in the Netherlands, which is designed around two new railway stations at its very core, as integrated transport interchanges, with a network of cycle paths and walking routes.

We spoke to planners in England who spent much of their time assembling bids for relatively small amounts of money in an attempt to slowly put together the components of integrated transport to serve new homes. Good planners had to become financial negotiators to extract funds from developers. Accessing government funds meant competing against other local authorities and complex business cases. With such uncertainty and waste of planning talent, it seems the system could be very much improved.

* Chapelford will soon be getting a new train station (Warrington West).

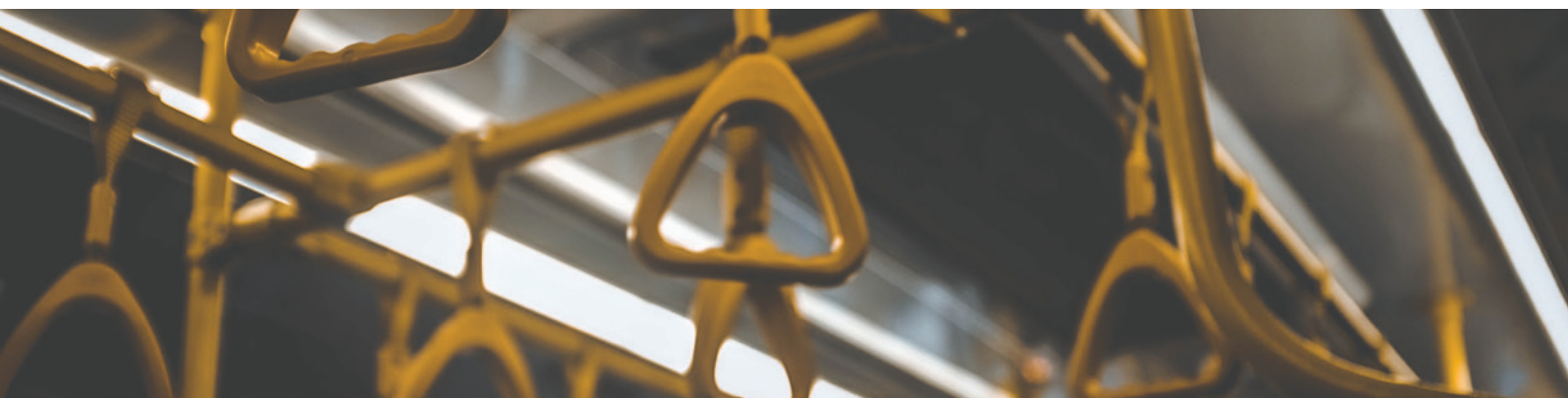


Recommendations – Theme 3

Public transport opportunities missed

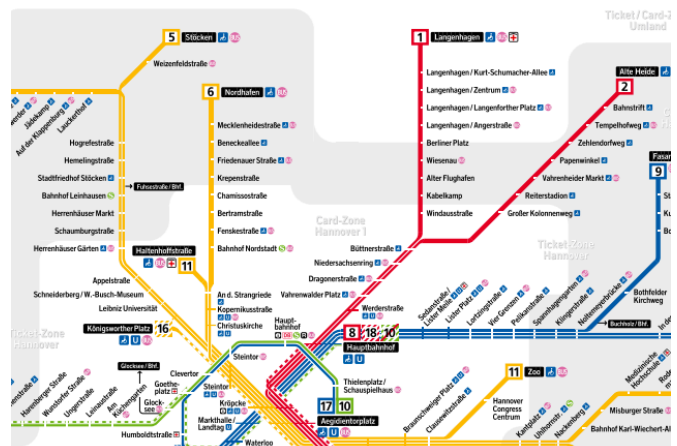
Summary:

- **Servicing by public transport had not been a priority in planning most of the places we visited and this failure is deeply engrained in the planning system.** We could see that the trend for the future was building hundreds of thousands of new homes in places where nearly everyone tends to jump into a car, with the health and public realm consequences ignored, despite fine words in the NPPF.
- **Wrong location for new homes.** In a number of cases the place chosen for the new homes was wrong for serving with public transport. It is worrying that there is a new fashion of ‘garden villages’ and other new estates on fields outside market towns which are precisely in the wrong location to be served by bus.
- **For the bus, a new development close to a very large town was easier to serve.** This was because these places already had a good bus network and services could be extended to go into the new development area. Unfortunately many estates were built in places with limited bus services to start with, and bus cuts already leaving a very limited network of services.
- **Wrong layout.** The layout in many areas of new homes was not right for serving by bus with roads too narrow for buses through the estate, problems with parked cars, or bus stops stranded on distributor roads or at the ‘gateway’ to the development. Buses get stuck in traffic going into town.
- **Car-based sprawl reduces the attractiveness of using public transport and makes bus services less viable.** The sprawling model of development on the edge of towns, orientated around fast roads and roundabouts, is not an easy layout to serve by bus. Yet this is exactly where new homes are being built.
- **New railway stations and services are practically impossible to deliver in real life.** We met planners, Local Enterprise Partnerships and MPs wanting local rail. There was great enthusiasm for this mode of transport but we saw only one success story: Cranbrook.
- **Mass transit systems in conjunction with new homes? New homes orientated around modern rapid transit were hardly seen –** there was only one instance that we saw – new homes around Cambridge. That said we found a number of long term spatial plans for areas expecting a very large population rise emphasising the urgency and importance of building modern mass transit in the future, including the Solent area and Greater Bristol.



The way forward:

- **Local public transport, rather than strategic road transport, needs urgent funding in conjunction with new homes and associated development.** Local public transport has a very important future role to play in national and local planning policy and we need to be firm on this.
- **We need to consider where and how much to build on the basis of public transport connections and access to jobs.** This may sometimes mean using greenbelt land.
- **We need to use digital technology to map and specify public transport and walking and cycling networks early on in the planning process,** coordinating locations for new homes and business parks planned across a wide area so that we build a coherent whole and select the right sites to build.
- **The Department for Transport needs a local rail, bus and rapid transit team to help facilitate delivery of modern public transport networks to support new housing and economic growth.** They and local authorities need more expertise on the practical implementation and delivery of public transport and they need assured funding for sustainable infrastructure and services, rather than the current 'drip feed' funding that planners have described to us.
- **We need to work with local bus operators from the start** on the specifics of design and layout of new areas of housing and any other associated development.
- **We have to streamline and accelerate the process of opening new stations** as hubs within areas of new housing. The new station needs a central location within the development.



Theme 4: The importance of mixed land use

One of the encouraging observations we made on our visits to Poundbury, the Netherlands and to some extent in urban regeneration projects in this country, was the value of mixed land use. This does not mean putting a business park off a roundabout somewhere in the vicinity of new homes and then a new supermarket off another road junction, but actually integrating jobs, retail, leisure and other functions into the very fabric of the new development. A visit to Poundbury demonstrates the idea well. Different functions are not found in different parcels of land separated by road systems or large car parks, but part of the general walkable public realm. As a resident or someone working in Poundbury, you can go to small shops or the supermarket have lunch in the pub and take the children to the park with a café and enjoy a meal in the evening, all without being tempted to get into the car.

The problem of course is that the whole layout and design of a successful urban extension like Poundbury needs to depart from the conventional wisdom which is as many homes as possible with easy car access and lots of parking. We heard however from the planning team at Poundbury that despite many jokes about the architecture and being 'posh', that the large area of new homes is extremely popular for people from all walks of life and a financial success for the developer. People really did walk about and the place seemed vibrant on the three visits we made. With less room taken up by the car, it was pleasant and green.

We want the small town atmosphere but it's not what we get. Poundbury had however, succeeded.

The surprising thing about many places we visited was that their advertising literature presented a place that had many components of the Poundbury ideal. There was talk of 'villages' and 'local community'. The mock-ups show people walking and even high streets full of shops and cafés. It is true that primary schools in such places are built relatively early on, but apart from that other community facilities and shops are slow to materialise and the 'village atmosphere' elusive.

In some places – like Cranbrook – a small 'local centre' was developing, but in many cases the local centre defaulted to being a large supermarket or shopping mall on the edge of the housing area, built for easy car access and close to main roads and roundabouts with a large car park to match. Such places are designed to attract shoppers from a wide area and are not the same as the village shop or a genuine 'high street'.

With business and retail physically separate from homes, we saw that it was hard to imagine many places developing into anything other than car-based dormitory housing in the future. Planning has to change.



This very large new supermarket near a housing development in Swindon dominated the retail market, while local shops and cafes had not opened and units remained in development.



This new pub lies at the centre of a major 'urban village', yet was mostly a place to drive to.



This café in Cranbrook new town was independently owned and seemed much more part of the community than a 'chain' outlet might have been.

A working and living town.

The architecture and 'old world' feel of Poundbury is liked by some and not by others. However this is not what interested us so much as the approach to land use and the consequent walkability of the place. We were told that there were around 2,000 jobs in Poundbury and that the whole idea had been to integrate places of work, retail and community provision within the residential area. It seems to work. There was a mix of homes, shops and businesses at a walkable and people-friendly scale. Census data from 2011 shows 32% of residents here walk to work, far higher than in our other sites. Upton near Northampton attempted something similar to Poundbury, this time with contemporary architecture, but lacked the businesses, the shops and the retail that makes Poundbury a success. With Upton the walkability was spoilt by its proximity to large roads and accompanying fringe of town car-based development which we thought encouraged its use as a dormitory estate rather than a community of its own.



*The Dorset Cereals and chocolate factories (above) are actually in Poundbury itself. The idea was to create a working place and not just a housing area. Having lots of jobs in the town rather than on a distant business park was all part of a model that fitted in with integrated transport.
(image courtesy Jonathan Billinger)*

Despite good intentions, many new large areas of new homes risk being a 'monoculture' with limited local facilities.

Recommendations - Theme 4

The importance of mixed land use

Summary

- **The idea of a walkable community with lots going on is one which is familiar in urban areas. It arises when we build at a human scale with a good mix of residential roads in close proximity to shops, cafes, places of work, metro stations, bus stops, community facilities and places of interest.** However the new build that we have seen generally have not followed this model. Masterplans may speak of 'vibrancy' and of a 'local community'. National planning policy may point to the desirability of these things and more recently, to the importance of people meeting each other rather than existing in isolated spaces. However despite the best intentions, the places we are building struggle as real communities and end up as dormitory suburbs. This problem appears to be getting more common and needs our close attention as a society.
- **The compartmentalisation of space and the wrong scale for walking.** Many planners hope that by building new employment areas and retail parks near to new homes that walkable places will result. This sounds like a good idea, but if the area as a whole is designed primarily for cars then it is not likely to work. A skeleton of distributor roads and roundabouts results in quite a different place than one built around streets and squares. We saw therefore new and expanded employment areas that might only be a twenty minute walk away but they were cut-off from residential areas by large new roads and roundabouts. Equally new retail parks could be argued to be 'local centres' but these too are located and designed for car access. Walking to these places you feel the odd one out. Arriving by bus also feels wrong as you walk past so many parked cars across open spaces not designed with the pedestrian in mind.

The way forward

- **Mixed use seems to work.** Older town centres show us the advantages of mixed-use localities, where a range of shops and businesses can thrive cheek-by-jowl with people's homes. Although the architecture of Poundbury is liked by some but not by others, the place stood out on our visits because it had at least some of the feel of a place that was truly established and a living community. It had a range of independent businesses which added individually to the new development and provided the possibility of local employment. This and the diversity of housing helped to encourage a more diverse 'ecology' of functions in the development, avoiding the monoculture that we encountered in many other new housing developments.
- **Make the area a new destination not just a dormitory estate.** Providing small scale premises for businesses means people coming into the new housing area rather than it being a dormitory suburb. In terms of buses – people used these to go out and come in to the area at peak time – two-way flow of travel. Build in affordable and flexible premises for local businesses and shared work space. Providing a source of local employment is a great way to ensure that new developments will be busy throughout the day and able to support a good range of shops and community facilities.
- **Encourage community cafés and shops.** Villages are running these where local facilities have closed. They might well work in the context of large new developments. Once there is local involvement and responsibility for running things, not only do people start to use the locality and walk, but they also interact more.



Theme 5: The advantages of a new urban quarter as opposed to an isolated development.

Having found that many greenfield sites were car-based with not much in the way of local facilities, we were much encouraged to see that large scale housing within urban areas was different.

Rather than assume that future residents would likely want two or more cars per household and that access to the fast road system was paramount, the shift of emphasis was to innovative walking routes, cycling, access to the existing public transport network and towards a more interesting and varied public realm. Residents benefited from a range of shops and services within an easy walk, these either newly provided or already in place. Correspondingly, new shops and businesses benefited not only from having the residents of the new homes as customers, but also from the proximity to lots of other people living in the wider area. Educational establishments of all kinds were accessible by public transport or on foot, giving teenagers and other young people independence from having to get lifts. Evening entertainment was accessible without having to drive. At the large new Kidbrooke Village development in south east London, an improved railway station was very close by. For occupants of the flats here, a parking space was an optional extra, not provided as standard.

However, in cities with strong housing markets, such as London, there is a particular lack of affordable housing. There is a risk that the most accessible new homes transport-wise will be available only for who can afford higher prices. Bath Riverside is an exciting development in a very good location in the city and there is limited parking for new residents. However the development is aimed up-market and those who are

less fortunate in terms of what they can afford must look over the other side of the green belt to West Wiltshire and Mendip, even though public transport connections are limited there.



Developments on large brownfield sites in an urban setting or as a new quarter to a large town mean that there are lots of things to walk and cycle to and good public transport. In the Netherlands the same effect was achieved by investment in community facilities from the start and coordinating developments across a wide area with sustainable transport at the core of policies at every level.



Recommendations – Theme 5

The advantages of a new urban quarter

Summary:

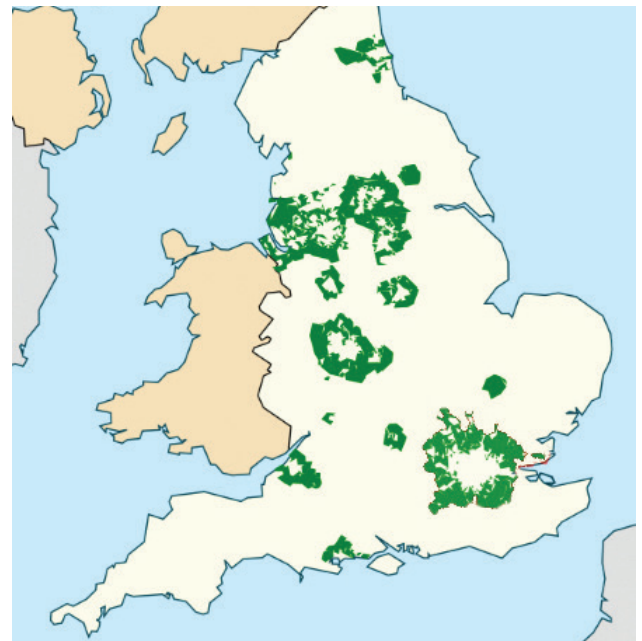
- **The trend towards counter-urbanisation takes us in the wrong direction.** With a higher population density than any other large European country except the Netherlands, England has a long history of urbanisation. As we've seen, building new homes close to urban and metropolitan areas has many advantages for accessibility. To achieve these benefits while restricting suburban sprawl, sites in existing urban areas should be prioritised when planning the location of new homes, as long as these do not result in the net loss of affordable homes. However, our visits to new homes as part of this project and our examination of proposed new build show a recent and distinct trend to counter-urbanisation. As explained, this comes with a renewed emphasis on the private car as almost the sole mode of transport.
- **Our visits have shown that new urban extensions close in to the existing urban area or new homes within our cities can work for integrated transport.** However even in developments situated on the edge of large towns, (for example Hampton, Peterborough and Upton, Northampton), these are still cut off by major roads with their access via large new roads and roundabouts. The planning system is not delivering integrated and sustainable transport.



The way forward:

- **Urban quarters are a great alternative to faceless estates.** We visited new suburbs in the Netherlands that were built in an urban style with a critical mass sufficient to support a thriving town centre and a railway station with services every 15 minutes. High housing density, a mix of land uses and an attractive walkable built environment all help to achieve this.
- **Use of small and large brownfield sites in existing urban areas should be a real priority,** but this means changing the way that housing targets are calculated and looking at capacity and proximity to jobs and services rather than using a methodology based on trajectories and trends. The planning system currently almost directs new homes to large greenfield sites. It needs to change. Urban brownfield sites are often ignored in favour of greenfield sites that are either considered to be easier to develop, or that can be used to unlock funding to build new roads. This is the case in Trowbridge, Wiltshire, where greenfield homes associated with a major new road are being developed instead of a large brownfield site in the town centre.
- **Green belt release may be needed.** In some cases such as at Newcastle Great Park, green belt release can be appropriate in the right location where good quality transport links are possible. When well designed, the proximity of urban developments to surrounding neighbourhoods may make it easier for the new homes to integrate into the existing community. The bus industry has suggested to us the model of large scale housing built as a series of 'beads' on a public transport corridor emanating from a large urban area. A coordinated series of developments might involve rapid transit, bus priority lanes and dedicated cycle and pedestrian routes.

- **New urban quarters in smaller towns are possible.** These benefit new and existing residents in what they provide. Thus Allerton Bywater was a village of 4,000 when construction of the Millennium Community began, but the new homes occupy a central site within the village and share facilities with the rest of the village. Newly built facilities may have potential to be used by the wider community rather than just by residents of the new development.
- **Making sure that everyone can afford places which are not car-dependent.** There is a risk that while families on lower incomes are less likely to be able to afford to own a car, homes in urban neighbourhoods with the best accessibility by public transport, walking and cycling, are becoming increasingly unaffordable. This was reflected by the higher house prices we observed in urban sites such as Kidbrooke, Bath and Cambridge, and can be exacerbated by regeneration schemes that involve demolition of existing social housing and a net loss of affordable homes.



Green belt jumping can push large estates deep into rural areas, away from public transport and jobs.



Theme 6: Insights from the Netherlands

The Transport for New Homes project visited the Netherlands and we were shown round by planners. This included a stay in a new home in an urban extension to get a better feel of what the new suburbs are like. The new residential areas we saw were much less car-based, and much better connected to existing urban centres by extensive rapid transit, cycle and pedestrian networks than their counterparts in England. Far from the public realm being barren, new estates seemed much greener and more architecturally interesting, with a good mix of flats, terraces and detached houses. Green areas were many but small and intimate so that they added to the varied public realm. Formal parks with tennis courts, playing fields, allotments and garden areas were carefully linked into the walking and cycling environment. Community facilities were situated within the fabric of the residential area, not on the edge or off a roundabout or main road. Local centres were furnished with a range of cafés and small supermarkets and other shops.

Urban public transport is a priority

Public transport plays a central role in shaping Dutch urban extensions. We saw rapid transit systems that linked new development to new railway stations and to the adjacent urban areas. The buses had their own segregated bus lanes with junction priority in many places both in and outside of the new homes area. Stations were modern integrated transport hubs in the development – not a parkway station - with vending kiosks, large parking areas for bikes and bus stops. The trains themselves were modern and sufficiently frequent that missing one only meant a short wait. Services from the local station meant quick arrival at a mainline station where you could change trains for national and international travel. A smart card system meant that you could use the same electronic payment card for most journeys in the country.

In the middle of town, not the fringe

We saw large new urban extensions near Utrecht with shops, cafés, offices, community provision of all sorts

- even a new urban farm - right in the middle of the new housing area. Whereas in England these would be orientated around a road system with car parks, development was done differently with everything part of a network of streets for walking, cycling, or catching the bus, rather than the assumption that 'of course, most people will drive'. Buses had their own lanes in both directions in new housing areas in the Netherlands, and these were carefully separate from cars, cycling and pedestrian routes. When we expressed amazement at the success of new local centres, the Dutch planners showing us around reminded us that out-of-town supermarkets had for many years been heavily discouraged by the planning system. This was for reasons of maintaining town centre vitality. The idea really seemed to work.



Houten train station runs above a major cycle and pedestrian path. (Image courtesy Glen Koorey, cyclingchristchurch.co.nz)



Cycle lanes have priority in Houten (Image courtesy Glen Koorey, cyclingchristchurch.co.nz)



In summary

We have seen some good examples of new homes where residents can use a combination of walking, cycling or public transport to go about their daily lives. However, most new developments we have seen, particularly those built on large greenfield sites on the edges of towns, are designed for travel by cars. They have plentiful car parking, but limited or no access to public transport, limited facilities and services, and a lack of safe pedestrian or cycling routes to town centres or the surrounding area. The new 'urban extensions' and 'garden villages' by their very location away from large conurbations promote car-based living. This is a major issue of public policy.



The consequences are wide-ranging:

Thousands of new journeys on the roads. These generate congestion locally and across the strategic road network. People travelling from far-flung 'urban extensions' add to queues. Everyone suffers from longer and delayed journeys, more pollution and carbon emissions and increased need for road maintenance. Adding local road capacity consumes developer funding but such local fixes cannot solve what is really a network problem.

Undermining aspirations of active life styles, vibrant and less isolated communities. Local shops struggle because there is no walking community of people 'popping in'. Small businesses in workshops, corner shops and shared workspaces cannot thrive.

People face longer commutes. Local planning authorities must approve large developments far from employment opportunities because the government requires high targets to be set for housing in comparatively rural areas. Green belts complicate the picture. Pepper-potting large new housing estates into the countryside requires long commutes and late returns home. Family life suffers.

Lack of opportunities for those who don't drive, notably teenagers and older people, and those with disabilities.

A barren public realm dominated by parked cars and road access with little greenery. Houses packed together with small gardens and often surrounded by a sea of tarmac.

Stimulating wider car-based sprawl. Retail parks, leisure provision, eateries, new homes and even residential homes for the elderly are orientated around large car parks, connected by fast roads. This sprawling model creates a vicious circle, for even if developers talk about garden villages and local communities, the context of new homes is car-based. Subsequent development will replicate this rather than a more walkable pattern of development. England has a population density similar to the Netherlands. Yet we are building old-style US sprawl, with all its consequences.

These problems are not inevitable.



So, what can be done?

Our recommendations are published separately and summarised below.

- **Develop a national framework** setting out *where* to build new homes, based on provision of sustainable transport, and aiming to meet economic, social and environmental needs.
- **Build new housing in existing large urban areas, or in places that are close to, and well connected by public transport, walking and cycling.**
- **Plan land use and transport together. Local authorities must be able to work cross-boundary** to analyse, design and fund public transport in tandem with the expansion of a whole area.
- **Invest urgently in urban and suburban public transport** to serve expanding satellite towns and new suburbs. Local authorities wanting new rail stations and services face a mountain of barriers – these need to be addressed and overcome. Where appropriate, fund trams and light rail as means to pull expanding areas together. Put serious money into capital and revenue support for bus infrastructure and services to enable the new residents to beat the traffic using the bus.
- **Use urban brownfield and regeneration sites.** New urban quarters benefit from existing public transport networks and can be reached on foot and by cycle. Relate targets for new homes to the potential of redevelopment and brownfield sites.
- **Plan for higher densities but less area wasted on parking.** Build modern apartments and town houses with wide appeal, including near stations, with shops underneath and leisure facilities on site as, for instance, in Basingstoke, Bath, Bristol, London, Swindon and Woking. Take advantage of the enhanced viability of local businesses and public transport to improve the public realm. Curtail car parking to allow our planners to design more attractive places with more space for greenery and better public realm.
- **Look more closely at the lessons from Poundbury.** The architecture and 'olde world' feel of Poundbury may not be popular with everyone, but it seems to be successful as an urban extension. The new town is built at a human scale around walking not cars, and employment and retail are integrated into the walking environment. An interesting public realm with limited car parking contributes to its social success, economic viability and attraction for a variety of people and age groups. Planning policy must reflect the lessons from Poundbury – how it has achieved such success and its advantages and disadvantages as a model for other urban extensions.



Transport for New Homes Association

To join others concerned about transport for new homes, join the association. Meetings, specialised subgroup, information and influencing.

Individual membership: £40 per year. Please visit www.transportfornewhomes.co.uk

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