



Illustrative Diagram (courtesy of HTA Design LLP)

MORE HOUSES = BETTER TRANSPORT ?

The New London Plan was out for consultation till 5th March. There are two key policies in it of great concern to CBT.

One is the firm aim to achieve each year 62,500 extra dwellings in Outer London. The other is a stated desire to get 80 per cent of all trips in Outer London by way of walking, cycling and public transport modes by 2041. These two aims are mutually supportive but will need very tough planning action and a lot of investment in transport networks to achieve.

Outer London is poorly covered by high density orbital public transport. The main bus, tube and train services are radial. Worse, the interchange facilities between orbital (bus) and radial (rail) services are poor or even non-existent.

Historically, the once extensive London tram system in this outer area was somewhat limited in extent and was victim to the first phase of trolleybus conversion in 1933-1938. Even so, the trolleybus system itself fell victim to growing car ownership and ended in 1962.

Apart from historic 'villages' like Barnet, Outer London was largely developed by 'spec' builders in the 1920s and consisted of uniform semi-detached houses. Planning policy post WW1 favoured maximum housing densities of 'twelve to the acre' (thirty dwellings per hectare, 30 dw/ha in metric). Current national planning guidance now lays down minimum densities of 30 dw/ha. In the past, car parking provision was required at 1-1.5 car spaces per unit. Present

planning policy has reduced car parking to one space per unit or even to zero ('car free housing').

Taking all these factors together, we see that Outer London offers great scope for more sustainable forms of transport. Inner and Central London have seen the use of public transport, especially buses, growing year on year. Outer London has seen a decline in bus ridership, to the extent that reduced frequencies or even entire route closures are envisaged. What is now needed (and given support by the New Plan) is the 'densification' of entire residential areas to provide badly needed new housing and to establish a solid revenue base to support very much more intensive public transport.

How to achieve this? Only by means of consistent planning policies and development management by all of the 17 London Boroughs concerned. The minimum unit of development must be the 'street block'. The above illustration shows a suburban layout with standard semi-detached houses to the north and south of a developed street block (at about 60+dw/ha), based on the existing dwelling plots.

However, anything involving the use of statutory compulsory purchase powers would be political dynamite. So means will have to be found to achieve incremental (but co-ordinated) small scale infilling to a rigidly enforced detailed local plan (now possible under recent legislation); this to be locally endorsed. The key features in the diagram are the close linkages, by means of pedestrian ways, cycleways, shared spaces and traffic calming (all shown in pink). The aim must be to achieve 360-degree freedom of access to and from all resi-

dential units with safe and convenient movement to and from bus stops, rail stations, bus (or future tram) routes and accessible local shopping parades.

John MacBryde ARIBA MRTPI MCILT

West London Orbital Railway

The West London Alliance of boroughs believe their new 'West London Orbital' (WLO) rail corridor could open as early as 2023.

Eight London Overground 4-car trains an hour would run each way, plus extra inter-regional 8-car services between Surrey/Hampshire and Herts/Northants, bypassing central London.

The WLO would boost several west London Opportunity Areas and other housing sites along the route. Passengers could interchange with HS2 and Crossrail at Old Oak Common from 2026. The small number of freight trains on the WLO would continue.

Richard Cornelius, Leader of Barnet Council (pre-election anyway!) has been campaigning hard for this route to be opened, but his own borough officers have been fighting equally hard to exclude the WLO from their new Thameslink station at Brent Cross.

Barnet-Capita would lose a current Compulsory Purchase Order at Brent Cross if the station were enlarged, according to a memo from Capita's railway team. A delay to include WLO platforms would mean Capita's project would be in ruins.

Cynics have suggested a new railway contract ought to be awarded at Brent Cross anyway, after proper tendering in the railway industry, rather than Capita Rail automatically getting the job.

Our Newsletter is sent out to our London members and other contacts. The group exists to campaign for sustainable transport solutions in London and to support the work of the Campaign nationally. If you have not already done so we would be pleased if you would also join our group and take part in our London based activities.

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Regular meetings of the group are held in central London. The Newsletter is edited by Chris Barker.

Contributors are welcomed. Opinions expressed are those of the authors and not necessarily those of the Campaign for Better Transport. Previous issues of the newsletter can be found at <http://bettertransportlondon.org.uk>.

Autonomous electric vehicles on London's streets

We are getting used to the idea that Londoners' cars will soon be electric-powered.

This has the upside of greatly reduced air-borne pollution, but the downside of more commuters using their cars instead of the train (no excise duty and VAT on electricity) thereby worsening congestion with a knock-on effect on reliability of bus services. But motor vehicle makers are now preparing a second upheaval for us: autonomous, ie driverless, motor vehicles.

Autonomous vehicles must be programmable so as to safely and efficiently undertake journeys to specified destinations which are liable to be amended en-route. This calls for the ability to navigate, steer, and manage speed, including starting and stopping, so as to avoid stationary and other moving objects and respect lane markings and traffic control signals. And, ideally, autonomous vehicles should also be able to cooperate with one another: communicating information on traffic conditions so as to determine route optimisation without centralised control, and achieve optimal road space utilisation by forming virtual road trains (streams of vehicles travelling close together; closer than stopping distance at that speed).

This is a formidable specification. But made even tougher, because it is to be achieved while sharing the public roads with manual-controlled vehicles and without any modifications to the roads (such as guidance rails), or special signposts, or special traffic controls.

Photo-electric sensors distributed across a vehicle's bodywork can detect relative position and velocity details of nearby objects, stationary and moving. But navigation is a special problem. SATNAV is far too inaccurate. Google's street

mapping project offers a solution: an enormous high precision distributed 3D database, continually updated, and made using Lydar (a kind of radar) cameras on moving mapping vehicles. Similar cameras mounted on autonomous vehicles can read environment details and compare these with the database. (But Lydar cameras are much more expensive than fixed sensors.) The controlling software in the vehicle's on-board computers has to make sense of the information flowing in from all its sensors.

Robot drivers are likely to outperform human ones: we can expect autonomous vehicles to have superior fuel efficiency and significantly more respect for traffic control regulations and for other road users. Contrary to many pundits, I would expect autonomous driving to be safer: fewer accidents, and fewer deaths and injuries. Cyclists please note.

Google's street-map database, and its patented software for accessing the database would seem to give it a de facto monopoly of the means for managing autonomous road vehicles, analogous to Microsoft's position at the beginning of the IT revolution, when it licensed its operating system to PC manufacturers.

There is another big player on the field: Uber, with its dominance of taxi services provision, and reports in the press of orders being placed for fleets of autonomous cars. Pursuing the IT analogy: if Google's autonomous vehicle management software is analogous to Microsoft's operating system, then Uber's taxi service is analogous to a Cloud information service - where we find it convenient to store all our data.

If the analogy is a good one, it implies we Londoners are going to give up our cars and rely on Uber's inexpensive and reliable taxi services instead!

The upside; London's streets will

cease being one enormous car park. The downside; if Uber's taxis are cheap enough they will be on the streets in big numbers and will interfere with the reliability of bus services.



Tfl Budget Problems

The Tfl budget for 2018/19 approved earlier this year carried a health warning that has alarmed some commentators. Bus use in central London has been in decline since 2013 and buses on the road are now being reduced in number. The Mayor speaks of a compensating increase in outer London but examples are hard to find. The Economist estimates that road congestion increased by 360% in the three years after 2012, as Crossrail works, Cycle superhighways and other construction projects took their toll.

More worryingly, use of the tube also dropped during 2017, though some believe that it has now stabilised. This is harder to explain, but maybe it is that the change was masked by a switch from bus to underground in the peaks. It may also be that the previous mayor, in his bid to outdo the Tory/Lib Dem government, distorted the relative cost of single fares to travelcards (or daily/weekly caps), with the result that fewer journeys are free at the point of use and consequently unessential trips are not being made. This is reflected in a decline in footfall in central London restaurants and other leisure activities.

The Overground continues to flourish, and the drop in numbers where it has occurred is less marked than outside London, reflecting the benefit of freezing fares. Tfl is pinning its hopes on a prompt opening of the Elizabeth Line, where it will retain all fare income from lines inherited from the National Rail network.

Andrew Bosi

Driverless cars



Tech companies are happily predicting that fully autonomous cars will be on the road by 2022 and, according to Fortune magazine, 95 percent of cars sold will be autonomous by 2040.

But there is widespread scepticism not only about the timetable but the whole idea that driverless cars can become the norm on city streets or rural roads.

Christian Wolmar has exploded the fantastical predictions of the robot lobby in a new book: 'Driverless cars: on a road to nowhere' (published by London Publishing Partnership) launched in February at a meeting organised by CBT London.

Wolmar pointed out that this is the second step change in individualised transport, the first being spearheaded by Henry Ford in the early years of the twentieth century and resulted in roads becoming hostile places for people and cyclists and being designed around the needs of the car. This second step will inevitably lead to further restrictions. Autonomous cars might be able to plot a route, keep to speed limits and lanes and keep out of the way of obstructions including other vehicles and people. But if cars are to be controlled in a robotic manner it

would mean that people would also have to be controlled by ensuring, for example, that pedestrians only cross the road at authorised places and that cyclists are allowed only on their own rights of way. We spend our time lobbying to reduce the supremacy of the motor vehicle to reclaim the streets for people. Autonomous cars would move us in the opposite direction.

Even if this happened we would not be safe. Even a minor computer malfunction could result in horrific crashes. And there is always the danger of computers being hacked, which could happen for a variety of reasons including terrorism.

There is a suggestion that driverless cars would lead to less congestion. This is partly due to the more efficient way they would be used. For example, it is suggested that cars would be able to travel at high speed only a few feet apart but, as Wolmar points out, the laws of physics still apply and, if a vehicle comes to a sudden halt because it has hit an obstruction cars behind would not be able to stop and the result would be an horrific pile-up. It is also assumed that cars would not be owned by individuals but be part of a pool which can be hired for particular journeys.

As these cars would be used more intensively than individually owned ones, which commonly spend 90 per cent of their time parked, there would need to be 90 per cent less of them. But there are obvious problems such as cars not being immediately available, particularly in rural areas. It is also the case that there is likely to be a surge of demand at particular times of the day. And because there would be no need to have a licence to travel in a car there would likely be a large increase in the number of users.

Wolmar's final point is that people are reluctant to give up driving and do not relish the prospect of giving up control. And, as he says, 'just imagine the Queen travelling in a driverless pod that might have been used by a vomiting drunk the night before'.

Chris Barker

Seven demands for accessible transport

Transport for All called on all of local council and mayoral candidates standing in the local election in May to sign up to their seven demands for a transport network that everyone can use.

The seven demands are:

- work towards introducing, or re-instating, double swiping for Taxicard users.
- clear street of A-boards which make so many pavements into an obstacle course for visually and mobility impaired people.
- make sure that all bus stops are fully accessible with buses being able to pull in near the kerb and make sure that all bus stop bypasses on cycle lanes are safe for pedestrians to cross.
- ensure that all pedestrian crossings that are under the control of the council are fully accessible, with tactile and/or audio signal and allowing enough time to cross.
- lobby TfL, train companies and government to set out a funded timetable programme for making stations fully accessible.
- support the appointment of a councillor whose focus would be disability and inclusion, including accessible transport within the borough.
- take a trip with disabled and older constituents.



Extending ULEZ

The mayor's consultation on the extension of the Ultra Low Emission Zone expired on 28th February. Caroline Russell, Green Party GLA member, responded stressing the following points:

- Make the ULEZ London-wide
- Apply the ULEZ standards to all vehicles not just lorries, buses and coaches
- Introduce the ULEZ by 2020 in this [the mayor's] term of office.

CBT London responded with the same message. As Caroline Russell said: 'These delayed proposals mean that the mayor will not be able to deliver on his manifesto promise of providing legal and safe air during his term of office. He risks making the North and South Circles even more polluted and congested as people try to avoid paying and skirt around the ULEZ. Outer Londoners will still be left out as many of them will still be exposed to dangerously filthy air.'

NEWS ROUNDUP

Croxley link on hold

The proposed diversion of the Metropolitan Line into Watford Junction is stalled. The previous mayor committed £49 million towards the cost of the extension but TfL now thinks that another £73.4 million would be needed. Mayor Khan thinks that this is too much for Londoners to pay for work which is not in the London area.

A spokesman for the mayor said: 'This is yet another example of the incompetent and chaotic approach the previous Mayor took to infrastructure projects – with London taxpayers being asked to pay for a scheme that will benefit people outside the capital.' But Richard Harrington, MP for Watford, said he was hugely disappointed and that an extra £73 million was guaranteed by two Secretaries of State making up for the shortfall outlined in his business case. He added that the mayor would have the air rights over the line for development.

John Cartledge adds: 'The Met Line Extension to Watford is classic political stand-off, with a Tory government and county council, Labour (London) mayor and Lib Dem (Watford) mayor and borough council each able to blame the others for sabotaging the scheme. The central, so-far-unanswered, question is exactly why the projected cost has ballooned as spectacularly as it has during the development of the scheme, and how robust TfL's current estimate really is. More generally, the underlying problem is that DfT funding for Underground infrastructure invest-

ment - unlike Network Rail's - goes via City Hall and no London mayor has any reason to allocate cash to the extremities of the network beyond the Greater London border when it could be used elsewhere on schemes more likely to benefit his/her constituents.'

Trouble with CS11

Cycle Superhighway 11 is due to run from Swiss Cottage to the West End. First there was trouble at Swiss Cottage where residents feared that the closure of the north end of Avenue Road would result in traffic being displaced on to residential streets. Then the route through Regents Park was threatened.

The proposal is to ban through traffic from Regents Park during rush hours by making it impossible to use the park as a short cut. This is to be achieved by closing four of the eight gates. Traffic for residents and for the zoo and the car parks would still be able to enter. These changes would free the Outer Circle for the cycle superhighway.

Everyone agreed with these change except, apparently, the City of Westminster which was concerned about the pressure on surrounding roads by displaced traffic. The City of Westminster, said the London Cycling Campaign 'believes that safer cycling will make the borough a better place, then does everything it can to oppose measures to actually make cycling safer.' However, Westminster has now said that it will not oppose the closing of the gates.

The London Cycling Campaign

makes a good case of refuting the notion that parallel streets will get busier. Keeping the gates open 'induces demand' and creates more traffic than would otherwise be the case, causing congestion all round. Closing the gates would result in some 'traffic evaporation' with drivers either switching to other forms or transport, diverting out of the area, changing the timings of their journeys or just not making that journey at all.

Crossrail

Crossrail is now 90 per cent ready but cracks are beginning to show. Some stations in the west (Ealing Broadway, Acton, West Ealing, Southall, Hayes and Harlington) are not yet ready. There are problems getting Crossrail's trains to deal with three different signalling systems. Worst of all, on 11th November 2017, when they turned on the power for the first time a design error caused equipment at Pudding Mill Lane sub-station to blow up when two voltage transformers failed. A subsequent switch-on worked. Despite these setbacks a spokesman for Crossrail assured us that the line remains on course to open as planned in December 2018.

Responding to new technology

Transport technology is developing at a bewildering pace. We have app based innovations such as dockless bike hire, Uber and Citymapper (offering niche bus services as described in our last issue). Connected and autonomous vehicles including cars and buses are being trialled. Drones are already used for leisure purposes and by such institutions as the police and Network Rail. Amazon is hoping to use them and droids (ground based drones) for 'last mile' deliveries.

A report by the GLA Transport Committee presses the need for planning and monitoring these developments suggesting that TfL has been taken by surprise by operators like Uber and oBike. oBike introduced their dockless bikes in a number of London boroughs causing significant disruption to the street environment. The committee's recommendation is for TfL to establish an advisory panel with the Department for Transport and other stakeholders to keep abreast of developments.

Other recommendations in-

clude an update of TfL's car club strategy to embed car sharing in the context of the emergence of connected and autonomous vehicles, to develop the principles of a new regulatory regime for demand-responsive bus services and to ensure that data produced by apps powered by publicly available TfL data should be shared with TfL.

Save access at Brentford station

Transport for All and Ealing Centre for Independent Living organised a demo at Waterloo on the 18th April to protest against South Western Railway which is threatening to allow trains to run without a guard on board. Such a decision will affect accessibility at many stations (including Brentford).

Brentford station is unmanned, so the guard is the only person who can help with the ramp. The guard currently gets out of the train, unlocks the ramp located on the platform, or gets the one from inside the train and positions it for wheelchair access.

The message to South Western Railway is don't axe access at Brentford station.

- We want Turn-Up-And-Go assistance guaranteed.
- We want the presence of guards on board the trains to be guaranteed.
- We want staff at unmanned stations.

Carbon footprint of the Silvertown Tunnel

When deciding whether an infrastructure project contributes to or mitigates against global warming, we must compare the amount of energy consumed in producing it (embedded carbon), to the amount of energy used by the vehicles and infrastructure (carbon footprint)

The construction of the Silvertown Tunnel would generate 153,279 tonnes of CO2. That is the equivalent to the annual CO2 emissions of about 50,000 homes.

The energy consumption would be 1,827 annual tonnes CO2. Extra traffic emissions over a four year period (generated by the scheme based on the traffic using the tunnel) would be a total of 92,000 additional tonnes of CO2. No mention of induced demand.



Cars entering and leaving Regents Park at Hanover Gate