

Transport oriented development – the key to sustainable urbanism

We should look long and hard at all the opportunities to intensify development around transport hubs to create more homes as well as easier access to jobs, services and green spaces says Laura Mazzeo

With almost 70 per cent of the world's population estimated to be living in urban areas by 2050, there has never been a more pressing time to consider how we will accommodate such large and rapid growths in our cities, while also progressing towards a sustainable future.

Nowhere more so have such patterns of growth been seen than in rapidly developing nations but the same issues are starting to take centre stage in the growing capitals of the West and are most acutely felt in London. The result is an inevitable explosion in the consumption of land, energy and natural resources but also a concern for the loss of quality of life.

There is a strong case for responding to rapid growth whilst taking fewer environmental risks with high-density urban living. By combining a multitude of varied land uses into the city's vertical dimension, the hyper-dense city can optimise the accessibility, vitality, amenity and efficiency of buildings, as well as the communities they serve.

Our international experience in Hong Kong has taught us that high density urban planning and design are changing the model of sustainable development, questioning established lifestyle ideals and putting public transport and transport infrastructure at the centre of the debate as an enabler and catalyst of such new models.

In the 1960's, Jane Jacobs argued that we could minimise our damage to the environment by clustering together in high-rises and walking to work. This notion has since been developed to support the concept of Transport Orientated Developments (TOD). As the name suggests, TODs orientate dense urban development around efficient public transport nodes and along linear network corridors.

A close relationship between transport, social and economic mobility is key to accommodating rapid urban growth and developing a sustainable future for our cities. The technology of transport leads to contingent human habits being formed around significant hubs of movement, and the types of spaces (homes, workplaces, warehousing, shops, places of worship and even educational spaces) that are the very DNA of habitat start to accumulate around these new locations.

When Hong Kong resolved to close its congested airport at



ABOVE: Kowloon Station transport oriented development concept diagram © Farrells

Kai Tak, the construction of its replacement broke all records for scale, speed and innovation. Part of the largest infrastructure project in Hong Kong's history, the Lantau Airport Railway was conceived to provide a high-speed link between the city and the new airport at the remote island of Chek Lap Kok. Kowloon Station, the largest station on the line offered the opportunity to create more than just a point of access to an efficient transport link: it was the first of its kind to bring development of homes, offices, shops, public spaces, hotels together and on top of a major station. The station itself resembles an airport terminal more than a conventional metro station, incorporating in-town check-in counters, baggage handling and screening systems, as well as interchange facilities.

Above the station, a high-density, three-dimensional transit-oriented urban quarter was developed: comprising one million square metres of space for hotel, office, retail and residential accommodation, all arranged around a central square with easy access to the station below. More than a station, it is a new piece of city, self-contained and offering all the amenities an urban dweller might dream of from gardens and alfresco dining to jobs and shops on your doorstep but also extremely well connected to its surroundings and the rest of the city.

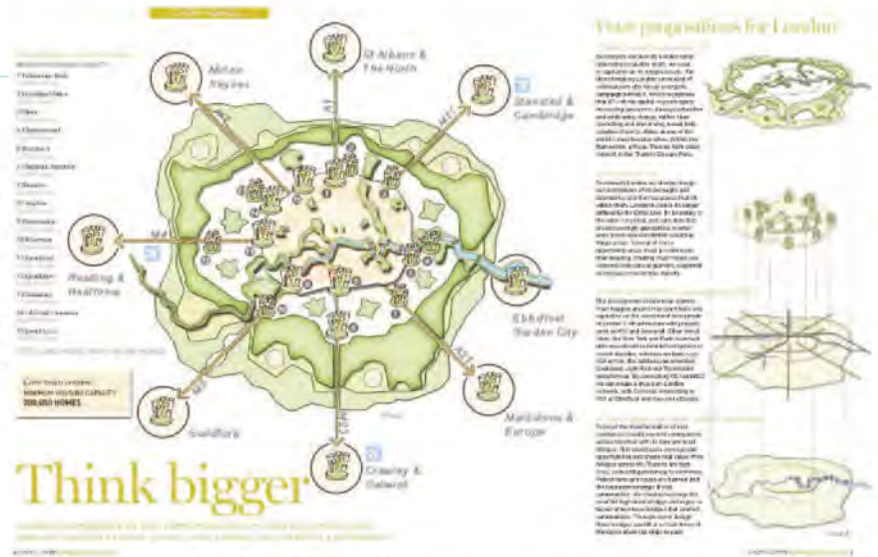
With 90 per cent of all trips made to and from the new Kowloon Station district being made via public transport and all spaces being enjoyed by residents, workers, shoppers and diners, this project has become the model of transport orient- >>>

RIGHT: Kowloon Station podium garden and square © Farrells



Laura Mazzeo, is a partner and head of masterplanning and urban design at Farrells

RIGHT: Four propositions for London, *Estates Gazette*
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BELOW: Old Oak Super Hub – The Vision
© Farrells



ed development in Hong Kong, Asia and globally.

Place-based differences between UK and China developments are linked to the point in time in history where population density in city centres has exploded. Where London had the highest density levels in the late 19th century, lack of construction methods and technology allowing to build tall led to overcrowding and slums. In Hong Kong, and more widely across Asia, this phenomenon being relatively recent in comparison, typologies and technologies were already available to respond to a growing population. However, as urbanisation rates continue to increase worldwide and populations become more and more mobile, bringing renewed growth to Western capitals, these hyper-dense models and associated environmental challenges become highly relevant.

Closer to home, we must realise that opportunities to create sustainable lifestyles through transport oriented developments are ready to be unlocked around both existing and planned transport hubs all across London. The Victorians had understood the value of transport oriented development well ahead of their times as St Pancras proves today: successfully combining hotel, shopping as well as connecting rail to underground in one single integrated building. The below diagram published by Farrells in the *Estates Gazette* illustrates where some of these major opportunities exist today, perfect catalysts for development.

One of those opportunities lies on a site of over 500 hectares of West

London. Our work on Old Oak Common has always had at its heart the vision to explore the wider potential of the proposed Crossrail and High Speed 2 stations and to look at the economic benefits that could ensue from their co-location. The resulting vision could generate an estimated 12,000 new homes, 115,000 new jobs, a new waterside park along the Grand Union Canal and a revolutionary rapid transit system.

It is however still at risk of never being realised with the imperatives of delivery of the rail element running ahead and in spite of thinking comprehensively about integrated developments.

The Old Oak and Park Royal Development Corporation and the new Mayor should take leadership on ensuring this is enabled and the delivery of a transport solution at all costs does not happen at the detriment of creating a new place for Londoners 15 minutes from Central London.

With part of the Elizabeth Line opening as early as 2019, HS2 following in 2025-2026 and Crossrail 2 currently on the drawing board combined with the urgency to house and offer sustainable lifestyles to a growing London, we should look long and hard at all the opportunities to intensify around transport hubs to create more homes as well as easier access to jobs, services and green spaces. To name a few: Euston Station, Clapham Junction, Earls Court, Old Oak Common should be high on our politicians' agenda along with planning ahead integrated developments along the entire Crossrail 2 line before it is too late. ■



← Connection to Willesden Interchange

- Bakerloo Line
- West Coast Main Line
- North London Line
- West London Line
- Rapid Transit

Road Transport Interchange

- Coaches
- Buses
- Taxis

High Speed 2

- Birmingham, Manchester, Leeds and The North
- London Euston
- Europe via HS2

Crossrail/ Great Western Main Line

- Central London, The City, Canary Wharf and the East
- Heathrow
- Bristol and the West

Rapid Transit & Highway

- New Tramway
- New Highway