

MTR Corporation Limited

David TANG
Property Director

Building Railway Station as the Centre of Community in Hong Kong

Railway is not just a piece of transport infrastructure

Railways have the advantage of efficiently moving masses of people safely and in an environmentally-friendly way. In many cities, railways are treated as just part of the transport infrastructure, like roads, built to move people to where they wish to go and reduce traffic congestion. The potential of railway to direct urban growth is often overlooked. As a result, railway station, and the land around it, is usually planned as a transient space in terms of size, form and functions for passing through, or intermodal change, and not for staying.

Increasingly city administrators realise the limitations of this silo-centric approach, noting the difficulties in tackling latent demand. As capacity increases and the congestion situation has improved, the relief on road traffic due to the construction of a new railway may be short-lived when the demand to travel by cars that had been latent materializes as actual usage. Besides, the substantial investment on the railway project appears to be not fully utilized. This calls for a holistic approach to look at transport and urban development together as one entity to find a more sustainable solution.

MTR builds and connects communities

In Hong Kong, railway has long been recognised as not just serving the transport function alone but also as a means to restructure the growth of the city. A unique approach to integrate railway with urban development to transform the city has been adopted in the planning and delivery of the MTR system, the first line of which was opened in 1979.

Under the “Rail + Property” model, or R+P model in short, MTR Corporation not only constructs railways to connect people but also build communities on top of stations and depots. At the time in the 1970s when Hong Kong needed a metro system desperately to deal with its increasingly serious traffic congestion problem but could not afford it, this model was able to help fund

railway projects through land value capture from the associated property development.

Since 1979, completed mixed-use development hubs have provided some 100,000 residential units and about 2 million square metres of office/hotel/retail space above stations. These station developments serve as both the origins and destinations of travel, providing the crucial last mile convenient access to the station which is instrumental to fostering a “smart” lifestyle for more people to live, work, shop and play around the stations.

With this integrated approach, people in Hong Kong enjoy a high degree of urban mobility from the efficient and affordable railway service. This helps to achieve greater social integration as people of different age, income level and social background may easily travel around, not disadvantaged by not driving. Communities built above station, ranging in size from a few hectares to more than 30 hectares, normally include shopping malls, public facilities and open space, offering ample opportunities for social interaction between people of all walks of life. The city is closely connected while traffic congestion and transport-related emissions are lower than other cities of comparable scale due to less reliance on road transport.

Over the years, housing or business communities contributing to meeting current and future needs have been established above almost half of the stations in the MTR network. With R+P projects being closely connected to neighbouring developments, Hong Kong gradually moves towards a transit-oriented metropolis. Some 42% of households, 43% of employment opportunities and 75% of commercial and office floor space in Hong Kong are located within a radius of 500 metres walking catchment of railway stations. Railway has become an integral part of the urban fabric, bringing significant economic, social and environmental benefits to the city.

This strategy has directed the city to expand upward, instead of outward, keeping urban development to only 25% of the city’s 1,100 ha land area and effectively protecting our countryside from the adverse impacts of urban sprawl. More usage of the railway and less reliance on road transport means a better connected society and a more liveable environment.

Construction and operation of railways involve high costs. By adopting the R+P model, new railway lines can be funded through the development-based land value capture mechanism. Simply put, property development rights of land above or adjacent to the stations are granted to the MTR Corporation for development to fill the project funding gap of a new line, instead of injecting cash or providing direct subsidies. MTR pays for the development rights on “green-field” (before rail) basis and captures the value uplift created.

This funding mechanism makes possible the “internalization” of the positive externality created by a railway line and put back the value captured into railway network development. It has worked well for Hong Kong by providing a world-class railway service without requiring government subsidy or burdening the taxpayers.

From the perspective of public finance, new railway projects can be implemented under this model more promptly to meet public transport needs and public aspirations, without competing for public funds with other public projects or services. In addition, Government transfers the business risks of railway construction and operation to MTR Corporation which, as a listed company, is better positioned to manage.

Planning and Design of Integrated Development Hubs

For the development hubs above stations to happen, an integrated land use/transport/environment approach has been adopted by Hong Kong Government to come up with an optimum development pattern. Railway is highlighted in the town plan as the backbone of transport, and urban growth generally follows the transit-oriented development approach. The unique R+P model becomes the key to deliver the planned integrated development hubs above railway stations.

MTR is responsible for the master planning, detailed design and project delivery for the station sites, fully integrating the station into the property development complex. As expertise is accumulated, it has developed sophisticated measures for building dynamic urban environments and well-connected communities. Place-making efforts are rooted in two core elements: seamless integration and comprehensive planning.

Compact, pedestrian-friendly communities maximising vertical and horizontal integration are established. Different uses, transport interchanges and open spaces are dovetailed and connected to the station through a series of indoor and outdoor pedestrian corridors, providing seamless access to residential, commercial, retail and civic uses, offering great convenience to visitors, residents and workers.

A “people-centric” integrated development concept is applied in the detailed planning and design of each project to meet the key objective of building a high-quality walkable community which is not car-dependent, so that different social groups can enjoy higher urban mobility from convenient access to railway service.

The station, as the focal point of the comprehensive development, is no longer an area where people quickly come and go, but the centre of intensive community activities. Measures introduced include provision of highly functional public spaces, convenient interchange with other modes of transport, supporting community facilities, barrier-free access and connected walkways to neighbouring developments.

The seamless synthesis of various land uses in integrated rail and property projects attracts different users throughout the day, week, and year. These uses and users help to activate communities and contribute to a more vibrant neighbourhood. This transit-oriented development and place-making approach continues to build Hong Kong towards a more sustainable and smart city.

Concluding Remarks

The integrated development approach building development hubs above stations is proven to work well for Hong Kong. It has demonstrated the key benefits of integrating rail with urban development in achieving both railway funding self-sustainability and sustainable urban growth. For other cities to apply the R+P model, they may need to tailor to local urban density, land resource availability and institutional mechanism and come up with their own version of R+P model which best suits their circumstances.