For discussion on 8 October 2013

TFKT/12/2013

An Update on the Planning and Design of the Kai Tak Development

PURPOSE

This paper aims at providing Members with an update on the planning and design of the Kai Tak Development (KTD).

OVERVIEW

- 2. The Kai Tak Airport was an icon of Hong Kong life and beloved by many for more than 70 years before its closure on 6 July 1998. KTD, to transform Kai Tak from an airport to Hong Kong's single largest urban development of about 323 hectares (ha), opens a new opportunity to create a quality living environment in the urban area for the future generations.
- 3. KTD is a highly complex development project comprising many high-impact projects, such as the Kai Tak Cruise Terminal (KTCT), the first District Cooling System (DCS) in Hong Kong and a multi-purpose sports complex (MPSC). KTD has been included in the development area of the Energizing Kowloon East (KE) initiative¹ and plays an important role to help sustain Hong Kong's economic growth and stimulate regeneration of adjacent old districts including Kwun Tong, Kowloon City and Wong Tai Sin. To improve connectivity of KE in the long term, an elevated rail-based environmentally friendly linkage system (EFLS) is proposed.
- 4. KTD has entered into the implementation stage, with early

¹ KE is an area comprising KTD area, Kwun Tong business area and Kowloon Bay business area. In the 2011-12 Policy Address, the Chief Executive announced that we will adopt a visionary, co-ordinated and integrated approach to expedite the transformation of KE into an attractive, alternative central business district (i.e. CBD2) to support Hong Kong's economic development.

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phases of infrastructure works under construction in full swing or at detailed design stage.

BLUEPRINT OF KTD

- 5. An extensive 3-stage Public Engagement Programme for the development of KTD between 2004 and 2006 was launched with a view to taking heed of public aspirations to protect the Victoria Harbour as a natural heritage of Hong Kong. Built on the public consensus for developing KTD with no reclamation and a green, people-oriented environment, the Kai Tak Outline Zoning Plan (OZP) was approved under the statutory planning process in November 2007.
- 6. Continuous efforts are made to achieve design excellence so as to meet public's aspirations and bring together land use planning with infrastructure in order to manage growth in a way that will enhance our environmental and social values, and support vigorous economic development. The Kai Tak Office proposed several important urban design enhancement changes of KTD, which included the revised layout in the northern part of Kai Tak City Centre to accommodate the Lung Tsun Stone Bridge (LTSB) Preservation Corridor. Another key enhancement is to relocate the waterfront driveways to the central part of Former Runway, releasing a vehicle-free waterfront walkway for public enjoyment in order to maximize the length of a continuous promenade at KTD. Under the same waterfront priority principle for public enjoyment, the driveways at the South Apron area were realigned to an inner location, unleashing the waterfront for promenade construction. A revised Kai Tak OZP was published for public inspection in August 2011. After public consultation and the relevant statutory procedures, the draft Kai Tak OZP together with further amendments, which were subsequently consolidated and included in the Kai Tak OZP No. S/K22/4, was approved in September 2012. A copy of the approved Kai Tak OZP No.

S/K22/4 is at **Annex A**.

LAND USE PLANNING

- 7. Under the planning vision of KTD, Kai Tak will be transformed into "a distinguished, vibrant, attractive and people-oriented community by the Victoria Harbour". KTD will become a new hub for sports, recreation, tourism, business and quality housing.
- 8. One of the most prominent characteristics of KTD is its extensive green open spaces, amounting one-third of the total area, i.e. about 100 ha, with about 11 kilometre (km) of waterfront promenade. The six development sub-areas shown at **Annex B**, viz. Kai Tak City Centre, Sports Hub, Metro Park, Runway Precinct, Tourism and Leisure Hub and South Apron Corner will all be integrated with a network of open spaces, creating a comfortable and leisure environment for walking. Residential, office, retail and hotel provisions are planned to mix with the sports and leisure activity nodes to ensure vibrancy in different times of a day and different days of a week. Subject to resolving technical and operation issues, in particular the water quality issue, there is also the opportunity to accommodate a variety of water sports / recreational activities in the Kai Tak Approach Channel (KTAC) and the adjoining water bodies to further strengthen the role of Kai Tak as hub for sports and leisure activities.
- 9. In terms of built development, KTD will provide about 2 million square metres (m²) each of domestic and non-domestic Gross Floor Areas. It will accommodate a population of about 90,000 and offer plenty of spaces for diversified activities.

URBAN DESIGN FEATURES

10. Kai Tak is planned as a sustainable and environmentally friendly development with integrated public spaces and maximised waterfront areas for public enjoyment. It will be the home place for major facilities including KTCT, MPSC and a Metro Park. Other major highlights consist of Kai Tak River and the Preservation Corridor for LTSB remnants. Some major features of KTD are shown in the plan at **Annex C**.

Public Rental Housing Development

11. The public rental housing development comprising Kai Ching Estate and Tak Long Estate at the North Apron area aims at creating an attractive residential district set around a central park, achieving the design theme of "Homes in the Park". No barrier design approach is adopted as far as possible. The park can be accessed conveniently from each block and will be fully integrated with the surrounding green spaces, forming a network of leafy pedestrian corridors. The public rental housing will provide over 13,300 flats for about 33,000 people.

Public Open Space

The design of KTD seeks to improve quality of living for the local population and cultivate a sense of belonging. About one third of the KTD area, i.e. about 100 ha, will be developed into green open spaces. Serving as a green web for sustainable development, the approach of landscape design for KTD is to provide continuous and interlocking green spaces that will link up all the major developments within KTD and form the basic pedestrian network for people movement. The green web will eventually reach out to its adjoining districts, together with an extensive framework of tree and shrub planting (**Annex D**).

12. At KTD, we will build a 24-ha Metro Park at the former

runway, forming the largest harbourfront park in Hong Kong, and a continuous waterfront promenade of about 11 km, almost equivalent to one-seventh of the waterfront of the Victoria Harbour, to fulfil our commitment for public enjoyment of the waterfront.

13. A thematic design framework for key components of the open space network has been developed which is conceptualized by location and functional requirements. For instance, the "Cultural and Historical" theme covers the area where cultural and historical resources of high significance are to be featured, such as Sung Wong Toi Park, the green areas surrounding LTSB remnants and the Chinese cultural garden at the Ma Tau Kok waterfront. As most of the open spaces are now being occupied for the implementation of infrastructure works, we still have time to prepare the design of these open spaces.

Greening

14. To ensure adequate provision of landscaping within individual development site to dovetail with the green web vision of KTD, a minimum overall greening ratio of 30% is generally required. At the public open spaces, there is a requirement of minimum greening ratio in the range from 30% to 60%. Taking into account development parameters such as site coverage, development quantum as well as pedestrian and vehicular circulation, minimum greening ratios of 20% at-grade and 20% at roof-top should also be provided. These requirements will be incorporated into the conditions of land lease and the Government land allocations for mandatory enforcement.

River-like Green Corridor through Urban Area

15. The 2.4 km long Kai Tak Nullah is currently one of the major flood relief waterways in KE. With the continuous improvement of water quality in recent years, there is a general desire to revitalise and transform the nullah into a unique urban river channel, and

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landscape axis linking the surrounding districts with KTD. After a two-stage public engagement exercise conducted between 2010 and 2011, the public support our vision to turn the nullah into an attractive river-like green corridor through urban areas, connecting and integrating KTD with neighbouring districts and to provide open spaces for public enjoyment, while maintaining its prime function as a flood relief for the East Kowloon area.

16. The reconstruction and upgrading of Kai Tak River within KTD commenced on 31 January 2013. The works will be completed by phases starting from 2016. For the landscaping works alongside the river within KTD, we are preparing to launch a design ideas competition in 2014/15 to tap expert ideas from all over the world as well as local talents.

LTSB Remnants

- 17. LTSB was first built between 1873 and 1875 with a total length of about 200 m to serve as a pier for the Qing Dynasty officials and the garrison deployed at the Kowloon Walled City arriving on marine transport. At the landward end of LTSB, there was a two-storey pavilion known as the "Pavilion for Greeting Officials". Subsequently, both LTSB and the associated structures were overwhelmed by urban development in the area and were either demolished or buried under the new reclamation for Kai Tak Airport in 1942 during the Japanese occupation in World War II. Fortunately, the remnants of LTSB were discovered between 2008 and 2009 in the archaeological investigation of KTD.
- 18. A two-stage public engagement exercise was conducted between 2010 and 2011 to arouse public awareness and obtain consensus to preserve the remnants in-situ. A 200 m long 30 m wide Preservation Corridor has been designated in the Kai Tak OZP to provide space for interpretation arrangement and display of the LTSB remnants. In terms of the LTSB's historical significance relating to the socio-economic and the development of

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Kai Tak and the Kowloon Walled City, it has the potential of being a unique "heritage" of Hong Kong. Seeing such the close historical relationship, a pedestrian subway across Prince Edward Road East (PERE) is proposed to link up LTSB with other heritage resources in the area, forming a distinguished heritage trail to promote local culture, history and architectural style of the area.

19. The "Design Ideas Competition for Preservation Corridor for Lung Tsun Stone Bridge Remnants" was launched on 24 September 2013. Qualified professionals and the general public are invited to contribute innovative design concepts for the preservation corridor to serve as a reference for the project in the future.

Sustainability Initiatives

- 20. The road network system within KTD is specially designed to discourage vehicular traffic. Local roads are all no-through roads to minimize traffic impacts. Railway transport will be the backbone of public transport services for KTD. Two stations of the Shatin to Central Link (SCL), namely Kai Tak Station and To Kwa Wan Station will be built at the North Apron area. Route 6, a strategic east-west road comprising the Central Kowloon Route (CKR), Trunk Road T2 and the Tseung Kwan O-Lam Tin Tunnel, will facilitate access to KTD.
- 21. DCS is another sustainability initiative in KTD. This is the first time in Hong Kong to have DCS serving the whole development area. The DCS is a large-scale centralised cooling system that produces chilled water at two central chiller plants. Chilled water is then distributed through an underground network of water pipes to the air conditioning systems in individual user buildings. DCS offers a whole range of energy efficiency and environmental benefits. It can significantly reduce the electricity consumption in air-conditioning and in turn contribute to achieving the vision of low carbon economy.

REMOVAL OF ODOUR NUISANCE

22. KTAC and the Kwun Tong Typhoon Shelter (KTTS) are semi-enclosed water bodies just next to the Former Runway, receiving stormwater discharge from a large urban catchment area in KE. Over the decades, the continuous inflow of polluted water due to expedient connections had caused water pollution and contaminated sediments deposited at the seabed, resulting in odour nuisance in the vicinity. With the redevelopment of Kai Tak, a series of measures including flow interception, bioremediation treatment of the contaminated sediments and dredging are being implemented to reduce the odour nuisance in the area. Continuous efforts are made to transform the water body into pleasant waterways commensurate with the open-space and green character of KTD.

CONNECTIVITY

- 23. KTD was originally a restricted area. It is bounded by strategic roads such as PERE and Kwun Tong Bypass, forming barriers for easy access to adjacent areas. To improve and enhance the poor accessibility situation, new roads are being constructed at the North Apron and the South Apron areas to provide direct vehicular access. The new distributor road, known as Shing Kai Road, under construction across the North Apron area will provide a convenient linkage between To Kwa Wan and Kowloon Bay. It will also provide an interchange with the strategic Route 6 for direct access to West Kowloon and Tseung Kwan O districts. SCL will run through the North Apron area to serve KTD and through its connections with the existing MTR network to gain access to other parts of the territory.
- 24. Connection between KTD and the surrounding areas will also be enhanced by providing a total of 25 sets of new and enhanced connecting points, in the forms of subways, footbridges,

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landscaped elevated walkways and underground shopping streets (**Annex E**). We have already completed the facelift of three existing subways and the construction of two elevated landscaped walkways to facilitate population intake of the public rental housing development in KTD. In addition, we are studying the possibility of a direct pedestrian corridor, with provision of cycle track, alongside the Kai Tak River, enhancing connectivity between Wong Tai Sin and Kowloon City with KTD, and accessibility to the promenade.

- 25. Connectivity of KTD and the rest of KE will be served by phases, initially by pedestrian connections and road-based green transport. As the transformation of KE into CBD2 takes shape, the demand for good connectivity will grow gradually and eventually reach a stage when road-based green transport will not be adequate to cope with the demand nor provide the level of service required for a core business district. A new form of connecting system will become essential to support the CBD2 in the long term. The Government is studying the feasibility of an elevated rail-based EFLS, in the form of monorail to integrate with other modes of transport to serve the area.
- 26. The proposed EFLS network (**Annex F**) is 9 km in length with 12 stations, linking KTD with Kowloon Bay and Kwun Tong and has direct and convenient interchanges with the existing MTR Kowloon Bay and Kwun Tong Stations. The proposed EFLS is undergoing a two-stage public consultation (PC) process. The Stage 1 PC was completed in October 2012 and the Stage 2 PC will be launched later this year to solicit public views on the way forward of the project.

IMPLEMENTATION

27. Construction of key KTD projects targeted for completion in 2013 is progressing on schedule. These projects include KTCT building and the first berth, which was commissioned in June 2013,

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installation of a new radar on top of the KTCT building, public rental housing development in the North Apron area, early phases of DCS, a fire station cum ambulance depot at the South Apron area, Runway Park Phase 1 and associated supporting infrastructure.

28. Please refer to Paper No. TFKT/11/2013 submitted to this meeting regarding the programme and progress of KTD for more details.

CONCLUSION

29. Members are invited to note the update on the planning and design of KTD. Advice and comments are welcome.

Kai Tak Office, Kowloon Development Office Civil Engineering and Development Department October 2013

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ANNEXES

Annex A - Approved Kai Tak OZP No. S/K22/4

Annex B - Development Sub-areas of KTD

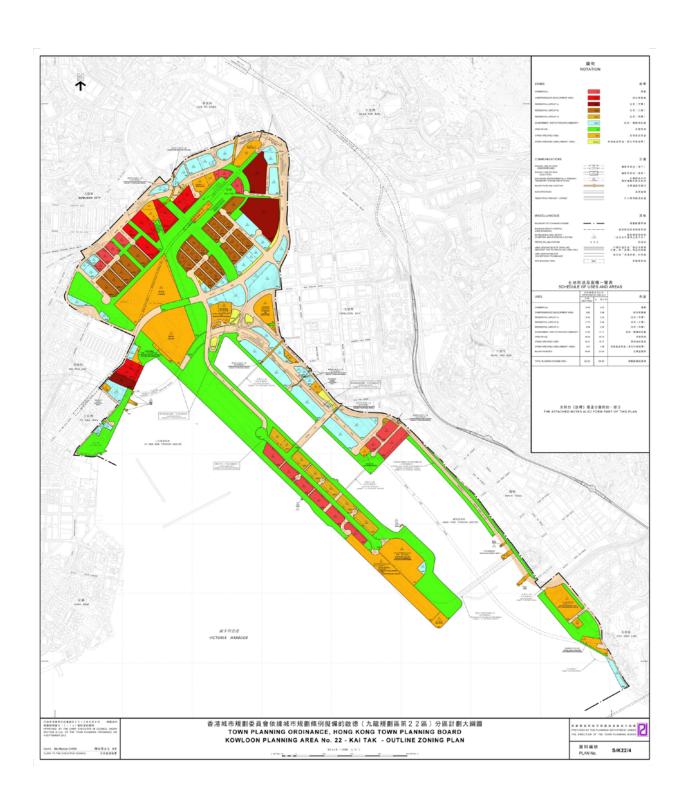
Annex C - Some Major Features of KTD

Annex D - Master Landscape Plan of KTD

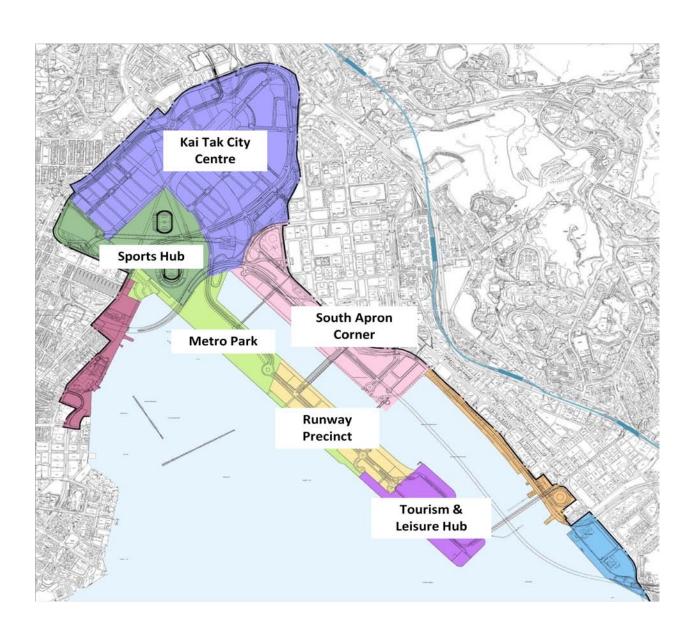
Annex E - New and Enhanced Pedestrian Connection Points

Annex F - Proposed EFLS Alignment

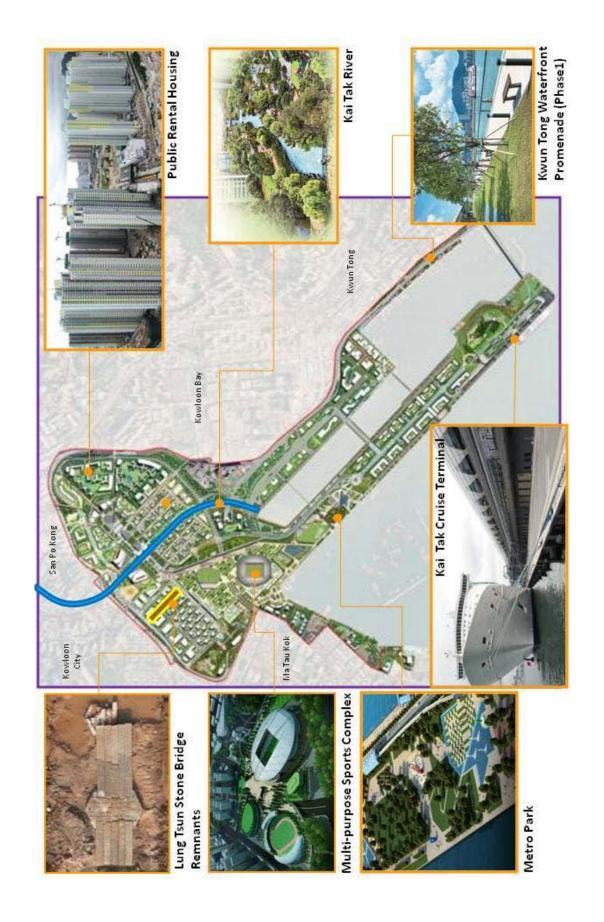
Annex A Kai Tak OZP No. S/K22/4



Annex B Development Sub-areas of KTD



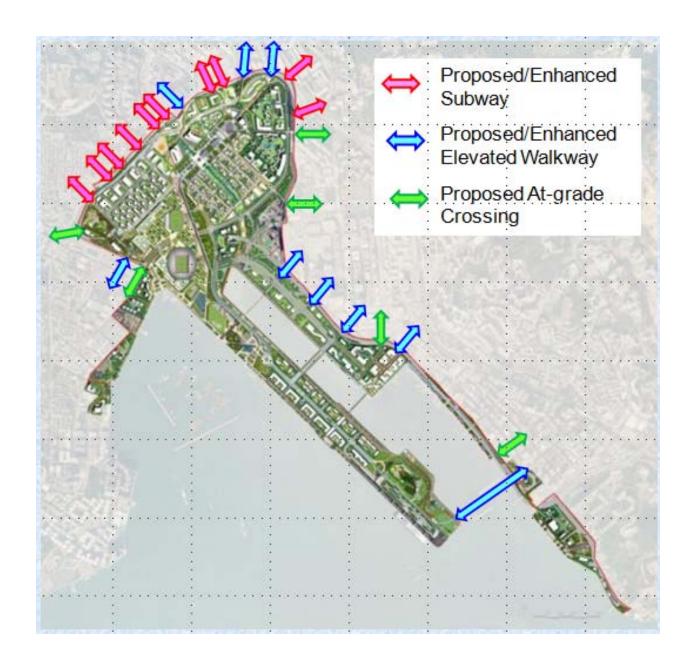
Annex C Some Major Features of KTD



Annex D Master Landscape Plan of KTD



Annex E New and Enhanced Pedestrian Connection Points



Annex F Proposed EFLS Alignment (Stage 1 Public Consultation)

