



北停機坪基礎設施 推展未來新住屋發展

North Apron Infrastructure Paves Way for New Homes



■啟德發展計劃位處香港心臟地帶，按規劃日後將為市民提供一處綠意盎然的宜人居所。為使啟德發展區內的住宅用地能早日推出，土木工程拓展署致力加快進行啟德發展區的基礎設施建造工程。

土木工程拓展署於2011年7月開展了核准工程預算為3億5 580萬元的前北面停機坪第二期基礎設施的建造工程，並於今年年中大致完成，以配合「啟德坊」內建築樓面面積約270 000平方米和約2 000平方米的住宅和商業用地發展，以及完成集水區覆蓋範圍約375 000平方米的排水渠道系統，使位於前北面停機坪「啟德坊」

範圍內的六幅住宅用地可提早推出市場。該等用地亦已於2013年年中至2014年年中推出。□

■With the vision to be a beautiful green environment in the heart of the city, the Kai Tak Development (KTD) is planned to become a pleasant home for people. For earlier disposal of residential sites in the KTD, the Civil Engineering and Development Department (CEDD) endeavours to speed up infrastructure construction at Kai Tak.

The CEDD commenced in July 2011 the stage 2 infrastructure works at

the former north apron area with an approved project estimate of \$355.8 million, which were substantially completed in mid-2015, to serve total gross floor areas of about 270 000m² and 2 000m² for the residential and commercial uses in the Grid Neighbourhood respectively. In addition, a drainage system has been completed to serve a catchment area of 375 000m². As a result, the six residential sites at the Grid Neighbourhood in the former north apron area could be made available to the market earlier with the disposal of these sites completed between mid 2013 and mid 2014. □

社區種植活動 展現啟德綠化成果

隨著第二期基礎設施工程大致完成，土木工程拓展署於2015年7月3日在承啟道旁的美化市容地帶舉行社區種植日活動，展現啟德以「生機、活力」作為核心設計的主題，營造優美宜人的景致，讓市民享受舒適的綠化環境。

約30名來自聖公會靜山小學和聖公會日修小學的師生亦參與了當日的種植活動，為社區綠化工作出一分力。兩間學校將會合併並遷入位於啟德發展區的新校舍。

主禮嘉賓 (由左至右) :

- 必高工程有限公司董事盧源昌先生
- 土木工程拓展署署長鍾錦華先生
- 九龍城區議會主席劉偉榮先生
- 奧雅納工程顧問公司董事陳嘉樂先生
- 九龍城民政事務專員徐耀良先生
- 九龍城區議會副主席潘國華先生

Officiating Guests (from left to right):

- Mr Lo Yuen Cheong, Director of Peako Engineering Co. Limited
- Mr Chung Kum Wah, Director of Civil Engineering and Development
- Mr Lau Wai Wing, Chairman of Kowloon City District Council
- Mr Chan Kar Lock, Director of Ove Arup & Partners Hong Kong Limited
- Mr Tsui Yiu Leung, District Officer (Kowloon City)
- Mr Pun Kwok Wah, Vice Chairman of Kowloon City District Council



Community planting event reveals Kai Tak's Greening

With the stage 2 infrastructure works nearing completion, the CEDD organised a community planting day on 3 July 2015 at the amenity area along Shing Kai Road. The event reflected the theme of Kai Tak's core design concept of "Vigour and Vitality" and helped create an attractive and comfortable green area for the public.

Some 30 teachers and students from the S.K.H. Ching Shan Primary School and the S.K.H. Yat Sau Primary School also participated in the planting activity to help build a green community. The two schools will soon merge into one school and move to the new school premises in Kai Tak.



第二期基礎設施主要工程 Main project scope of stage 2 infrastructure works

第二期基礎設施工程主要包括建造道路、排水、排污、水管和綠化工程，以及相關的環境影響緩解措施和實施環境監察及審核計劃。主要工程包括興建：

The stage 2 infrastructure works primarily consist of roads, drains, sewers, water mains and landscaping works, along with associated environmental mitigation measures and implementation of an environmental monitoring and audit programme. Main project scope includes construction of:

箱形暗渠 Box Culvert

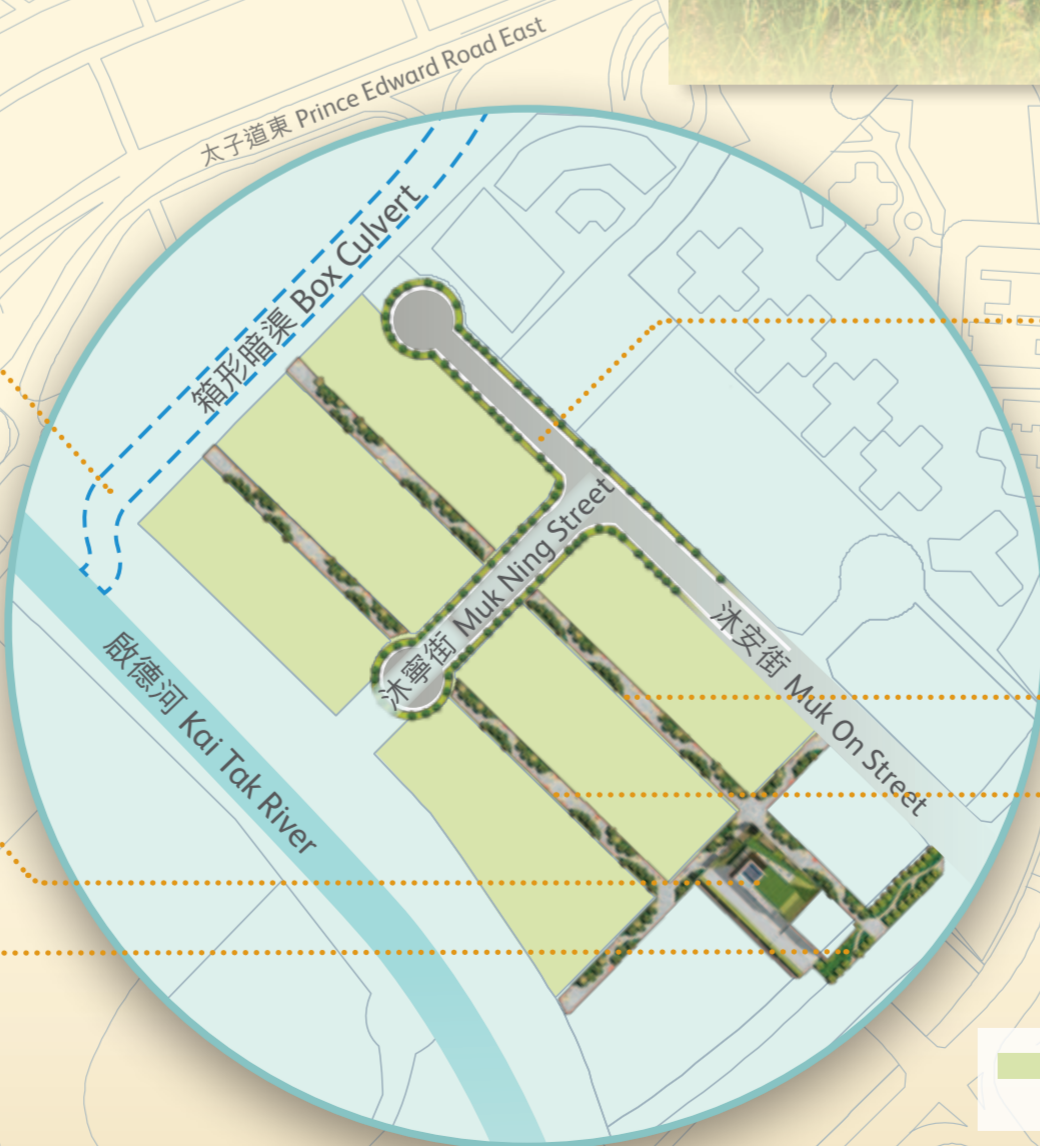
一段長逾1 500米、由太子道東至現時啟德明渠的箱形排水暗渠。
Over 1 500m long drainage box culverts from Prince Edward Road East to the existing Kai Tak Nullah.

啟德五號污水泵房 Kai Tak No. 5 Sewage Pumping Station

一所每日達450萬公升流量的啟德五號污水泵房。
Kai Tak No.5 Sewage Pumping Station with a pumping capacity of 4.5 million litres per day.

美化市容地帶 Amenity Area

一個路旁美化市容地帶
A roadside amenity area



區內道路 Local Roads

590米長的新建區內道路，包括在沐寧街及部分沐安街建造10.3米闊的行人路，以及車路兩旁7.5米至10米闊的行人路。
590m long new local roads, consisting of a 10.3m wide new carriageway and 7.5m to 10m wide footpaths on both sides on Muk Ning Street and part of Muk On Street.

行人專用街道 Pedestrian Streets

全長約950米、闊10米、連接「啟德坊」內六幅住宅用地的行人專用街道。
Approximately 950m long and 10m wide pedestrian streets adjoining the six residential sites in the Grid Neighbourhood.

第二期基礎設施 — 優質生活

Stage 2 Infrastructure Works – Quality Living

簡約優雅的新建區內道路 Simple and elegant new local roads



花葉沿階草
Jaburan Lily-turf



金蒲桃
Golden Penda



射干
Black-berry Lily

圍繞「啟德坊」的沐寧街和沐安街為新建區內道路，以「簡約優雅」的綠化主題，配合兩旁井然有序的喬木與柔和雅致的植物形態，營造出區內道路明顯的連貫性與獨特個性。作為主題樹的金蒲桃，全年均綻放金黃花朵。此外，路旁的射干，由盛夏至初秋將開滿橘黃並帶紅色斑點的小花；而覆蓋地面的花葉沿階草，則綻放呈鐘形的嬌嫩細小白色花叢，增添繽紛色彩。

“Simple and Elegant” is the landscaping theme for the new local roads, Muk Ning Street and Muk On Street in the Grid Neighbourhood where continuous shady tree corridors on roadsides with elegant soft landscaping forms are adopted to create a strong sense of consistency and identity. The thematic tree is the Golden Penda with its year-round golden yellow flowers. Black-berry Lily at the roadside blooms with orange flowers with red dots from summer to early autumn; together with the ground cover, Jaburan Lily-turf with delicate small white bell-shaped flowers grown in bundle, both add colour to the area.

貫通「啟德坊」內六幅住宅用地的行人專用街道，以「回家」為綠化設計主題，栽種了不少與行人高度比例相若的喬木和灌木，透過層疊式的綠化園景和精心配搭的花卉品種，呈現一片恬靜閒逸的氛圍。構成這優美景致的有屬常綠喬木的陰香樹，其樹皮散發芬芳香氣，初夏時節綻放黃色小花。灌木方面，葉子呈劍形的黃花巴西鸚尾，花朵金黃色帶褐色斑紋；而由晚春至夏末開滿淡黃色花朵的含笑，則散發出甜美香蕉氣息。

綠意綿綿迎回家 Greenery landscape to welcome home



陰香
Padang Cassia



黃花巴西鸚尾
Yellow Walking Iris



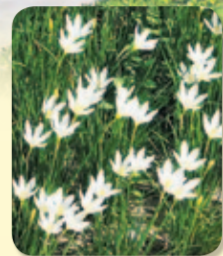
含笑
Banana Shrub

The pedestrian streets connecting the six residential sites in the Grid Neighbourhood adopt the greening theme of “Coming Home”, which is characterised by planting of ample trees in proportion to human scale and shrubs, layers of greenery, and carefully matching of flower varieties to create a quiet and comfortable ambience. Shaping this scenic landscaping is evergreen Padang Cassia tree with aromatic bark and small yellow flowers that bloom in early summer; shrubs like the Yellow Walking Iris with sword-like foliage that has yellow flowers mottled with brown spots; and the Banana Shrub with distinctive sweet banana-scented creamy yellow flowers that burst forth from late spring through summer.

暫離煩囂的綠蔭美化市容地帶 Shady amenity area makes a restful escape



秋楓
Autumn Maple



風雨花
Autumn Zephyr-lily



桂花
Fragrant Olive

位於第二期基礎設施內的路旁美化市容地帶，為市民提供一個靜態的康樂休憩空間，並會以同樣的「簡約優雅」為園景主題。其中秋楓樹高大挺拔，小花朵黃中透綠，行人漫步樹下倍感悠然舒爽；灌木方面，風雨花在春秋期間將開滿漏斗形白色花朵；此外，散發濃郁杏果或蜜桃香氣的桂花，美化路旁景致。

A roadside amenity area under the stage 2 infrastructure works providing a passive recreation space follows the same “Simple and Elegant” theme. Species include the tall stately Autumn Maple tree with its small greenish-yellow flowers that provides a comfortable shade for pedestrians; together with shrubs like Autumn Zephyr-lily, which has white funnel-shaped flowers from spring to autumn; and the evergreen Fragrant Olive that gives off an extremely powerful apricot or peach fragrance, that complete the roadside scenery.

污水設施展新觀 An aesthetic approach to sewerage facility

第二期基礎設施工程內的啟德五號污水泵房，以環境和諧配合為設計主題，增加不少綠化空間。泵房的綠化比率達百分之三十，除了垂直綠化外牆和天台花園外，更有大片綠化園景。環保設施方面包括作灌溉用途的雨水循環系統、供應電力給部分照明系統的太陽能光伏板裝置、引入自然光的天窗，以及活性碳除味系統。

這所外觀充滿綠色設計的啟德五號污水泵房，負責收集啟德河以東一前北面停機坪一帶，包括來自啟德坊、德朗邨及「啟德坊」私人住宅發展的污水。泵房的三台水泵預計每日可處理約450萬公升污水，約等於兩個標準泳池容量。收集所得的污水，經篩隔後會輸送往觀塘污水處理廠。泵房的設計證明了美觀與功能皆可同時兼備。



The Kai Tak No.5 Sewage Pumping Station under stage 2 infrastructure works adopts design theme to maximise greening areas and blend in with the environment. With a greening ratio of 30 per cent, the pumping station has a vertical green wall, a roof garden and extensive landscaped areas. There are eco-features including a rainwater harvesting system for irrigation, solar photovoltaic panels supplying electricity to part of the lighting system, a sky light to maximise the use of natural lighting, and an activated carbon system for deodourisation.

With a remarkable green exterior, the Kai Tak No.5 Sewage Pumping Station collects sewage coming from the former north apron on the east of Kai Tak River, including Kai Ching Estate, Tak Long Estate and other private residential developments in the Grid Neighbourhood. Three sets of pumps are installed in the station to handle an estimated sewage flow of about 4.5 million litres per day, which is approximately equivalent to two standard-size swimming pools. The collected sewage after screening will be transferred to the Kwun Tong Sewage Treatment Works. The pumping station proves that form does not necessarily have to be compromised with function.

締造宜人啟德坊 Creating a harmonious Grid Neighbourhood

啟德發展區內的不同項目一直以園景美化、綠化和可持續發展設計為優先考慮。前北面停機坪第二期基礎設施工程同樣貫徹這個原則，務求與發展區和諧相融。當中，行人專用街道在園景和綠化上的設計匠心獨運，以配合「啟德坊」不設平台、以中低座布局及附設宜人庭院的設計原則，營造一個布局錯落有致、鄰里和諧的住宅專區；「啟德坊」面對車站廣場的商用設施將採用柱廊設計，以建造舒適的有蓋行人通道，並帶出昔日九龍城的街道氛圍。此外，節能LED照明街燈和在行人專用街道上鋪設的特色地磚更可增添環境綠化和視覺效果特色。



特色地磚
Specially Designed Paving



All along, landscaping, greening and sustainable designs are priorities of the KTD projects, and the stage 2 infrastructure works at the former north apron area follow this principle to create a harmonious environment throughout the development area. In particular, the pedestrian streets are designed to echo the podium-free, medium and low rise blocks disposition with beautiful courtyards design concepts of the Grid Neighbourhood for a well-balanced and interesting vista to enhance community interactions. The retail belt of the Grid Neighbourhood facing the Station Square is intended to feature a colonnade architectural arrangement that will provide a comfortable covered walkway for pedestrians and help to bring back the street ambience of the old Kowloon City. LED street lights and specially designed paving also added value to the green credentials and visual effect.



節能LED街燈
LED Street Lights

截流抽水計劃 改善水質 Interception and pumping scheme brings water improvement

啟德發展計劃其中一個願景是活化這一帶水體，為社區締造一個舒適的休憩空間。為此，啟德發展計劃環境影響評估報告建議三管齊下的措施：首先是堵截由啟德周邊地區流入的污染物；其次是進行局部挖泥，並以生物除污方法，原地處理積聚的沉積物；最後是在前跑道的北面開出一個600米闊的缺口，以改善水流情況。

首兩項措施的工程已於2014年年中大致完成。根據監測數據顯示，氣味問題和水質

已有明顯改善。雖然啟德明渠進口道的水底溶氧量仍未達啟德發展計劃環境影響評估報告內要求，即百分之九十的水樣其溶氧量需達每公升2毫克或以上，以緩解氣味問題，但隨著啟德明渠進口道及觀塘避風塘的氣味和水質情況的改善，土木工程拓展署進行了詳細研究，重新審視600米闊的缺口的建議範圍，以及研究其他可行方案。根據研究結果顯示，進行「截流抽水計劃」作為替代方案能有效減少污染物流入啟德明渠進口道和觀

塘避風塘，並可改善水流情況，達到環境影響評估報告所訂的要求。

「截流抽水計劃」包括興建一個新抽水站，把啟德河的河水直接排往維多利亞港，從而減少進入啟德明渠進口道及觀塘避風塘的水量。此外，把現時區域供水系統海水泵房的入口位置，由維多利亞港改至啟德明渠進口道，以改善進口道的水流。

「截流抽水計劃」不但在建設費及生命周期成本上具備更高的成本效益，而且由於排水口遠離土瓜灣海傍，因此不會對該水域的水質構成不良影響。計劃的設計可大量減少因開通600米闊的缺口而產生的建築廢料，亦為規劃中的都會公園提供更靈活的设计和發展空間。土木工程拓展署已於7月至9月期間

諮詢觀塘、九龍城和黃大仙區議會，以及海濱事務委員會，並獲得普遍支持。

One of the goals of the KTD is to rehabilitate the water body around and turn it into a pleasant leisure environment for the community. To achieve this, the Environmental Impact Assessment (EIA) for the KTD made three recommendations: First, to intercept polluted discharge from the Kai Tak hinterland; second, to implement localised dredging and in-situ bio-remediation treatment of the sediments; and finally, to create a 600m wide opening at the northern section of the former runway to improve water circulation.

The first two measures were largely completed in mid

2014, resulting in significant odour and water quality improvements. Although the bottom dissolved oxygen at Kai Tak Approach Channel (KTAC) is still yet to meet the requirement of 2 mg/L or above, for 90 per cent of the sampling occasions under the EIA for KTD for odour mitigation, given the improved water and air quality at Kai Tak Approach Channel or Kwun Tong Typhoon Shelter (KTAC/KTTS), a comprehensive review was conducted by the CEDD to review the scope of the 600m wide opening and study alternative schemes. The result shows that the proposed “Interception and Pumping (IP) Scheme” can effectively reduce pollutants from entering KTAC/KTTS and improve water circulation, meeting the related EIA requirements.

Under the proposed IP Scheme, a new pumping station would be built to intercept outflows from Kai Tak River and pump them directly into Victoria Harbour, reducing discharges into the KTAC/KTTS. In addition, the seawater intake of the existing District Cooling System would be relocated from the harbour to the KTAC to enhance the channel's water circulation.

The IP Scheme would be more effective in terms of capital and system life cycle costs. Furthermore, water quality at To Kwa Wan waterfront would not be adversely affected as the discharge point would be further away. The design of the scheme would enable substantial reduction of the generation of construction wastes due to creation of a 600m wide opening.

The scheme would also provide greater flexibility for the design and development of the planned Metro Park. Consultations were conducted by the CEDD with the Kwun Tong, Kowloon City and Wong Tai Sin District Councils and the Harbourfront Commission from July to September with general support received.