

Legislative Council Panel on Development

PWP Item No. 206TB

**Enhancing Connectivity near MTR Kwun Tong Station
with Elevated Landscaped Pedestrian Deck**

Follow-up Issues of the Meeting held on 24 August 2021

At the meeting on 24 August 2021, the Panel on Development discussed the proposal in the LC Paper No. CB(1)1208/20-21(05) on upgrading PWP Item No. 206TB “Enhancing Connectivity near MTR Kwun Tong Station with Elevated Landscaped Pedestrian Deck” (“the proposed works”) to Category A at an estimated cost of \$213.9 million in money-of-the-date (MOD) prices for the construction of a covered elevated landscaped pedestrian deck near the MTR Kwun Tong Station (KWT). The Administration was requested to provide the following information:

- (I) a comparison of the estimated cost between the proposed works and other Government’s elevated landscaped pedestrian deck/elevated walkway with similar nature and scale; and
- (II) an implementation programme of the proposed works.

This paper sets out the Administration’s responses.

- (I) Comparison of the estimated cost between the proposed works and other Government’s elevated landscaped pedestrian deck/elevated walkway with similar nature and scale**

Detailed breakdown of estimated cost of the proposed works

- 2. The estimated cost of the proposed works is \$213.9 million in MOD prices, broken down as follows –

	\$ million (in MOD prices)
(a) Covered elevated landscaped pedestrian deck	118.4
(i) deck structure ¹	61.2
(ii) foundation ²	57.2
(b) Slope works ³	23.8
(c) Modification and connection works of the existing elevated walkways and the existing walkway to Yuet Wah Street ⁴	7.9
(d) Associated road and drainage works ⁵	8.4
(e) Landscaping works, public lighting and other ancillary works ⁶	8.7
(f) Environmental mitigation measures	3.1

¹ This cost covers the construction of deck structure of the proposed pedestrian deck and all temporary measures for not affecting the traffic at Kwun Tong Road during construction, including erection of temporary supports and elevated working platforms to facilitate lifting of the proposed pedestrian deck as well as on-site installation works, etc. Since the proposed works are adjacent to KWT and railway viaduct of the MTR Kwun Tong Line, additional protection and preventive measures are required during construction, and appropriate project management and construction arrangements should be made in accordance with the safety control of the MTR. To ensure the normal operation of the MTR Kwun Tong Line, the contractor can only carry out lifting works at night.

² Given the site constraints (such as limited works area for construction plants and materials, the necessity to maintain the existing traffic lanes at Kwun Tong Road during construction, avoidance of affecting the existing columns of railway viaduct of the MTR Kwun Tong Line, and compliance with the headroom, settlement and vibration restrictions of MTR structures etc.), mini-piles are adopted for the proposed foundation works, which are constructed by smaller and low vibration construction equipment. Since the bearing capacity of mini-piles is lower than ordinary piles, more quantity and larger foundation will be required for mini-piles, resulting in longer construction period and higher cost.

³ This cost covers modification and stabilization works of the existing slope (such as breaking part of the existing rock slope, constructing soil nails and retaining walls), and associated temporary works to facilitate the construction.

⁴ This cost includes modification of the existing elevated walkways near Exit C and Exit D of KWT (including removal of the existing parapet walls and modification of roofs), and modification of the existing walkway to Yuet Wah Street and its roof. In order to maintain the existing walkway to Yuet Wah Street and other existing elevated walkways for public use, temporary access will be provided or temporary measures will be implemented during construction.

⁵ Associated road and drainage works include temporary traffic arrangements during construction, road excavation, road resurfacing, alternation of drainage due to the foundation works, etc.

⁶ Landscaping works include planting works on and near the proposed elevated landscaped pedestrian deck, removal of trees and compensatory planting of new trees. Other ancillary works include diversion of public utilities, etc.

		\$ million
		(in MOD prices)
(g)	Consultants' fees for	2.1
(i)	contract administration	1.0
(ii)	management of resident site staff (RSS)	1.1
(h)	Remuneration of RSS	22.1
(i)	Contingencies	19.4
Total		213.9

Comparison between the proposed works and other Government's elevated landscaped pedestrian deck/elevated walkway

3. The estimated construction cost level of elevated landscaped pedestrian deck/elevated walkway involves a lot of factors, for instance, the complexity of the works, the geographic location and environment in the vicinity of the works sites, etc. all of which have influence on the costs. These factors are not exactly the same for each project. The proposed works have the following features and constraints:

- The foundation works and construction of deck structure will be carried out near KWT and railway viaduct. In order to ensure the structural safety and normal operation of KWT, protection and preventive measures are required during construction to comply with MTR's requirements on headroom, vibration and settlement etc.;
- Part of the proposed elevated landscaped pedestrian deck spans over the trunk road (Kwun Tong Road). In order not to affect the traffic flow at Kwun Tong Road and Kwun Tong Road/Hoi Yuen Road roundabout, the number of the existing traffic lanes must be maintained in the daytime during construction. Temporary traffic arrangements are required. Major lifting works have to be carried out at night, some of which could only be carried out during non-service hours of MTR;
- Part of the proposed elevated landscaped pedestrian deck is located on the existing slope (mainly rock slope). During the modification and stabilization works of the existing slope, adequate safety and protection measures are required to avoid affecting traffic safety of Kwun Tong Road and the railway; and to reduce noise and dust affecting nearby residents and pedestrians. Erection of temporary

supports and working platforms are required to facilitate construction of soil nails and the lifting works of the deck structure; and

- Other constraints include no provision of works area nearby for storage, fabrication and assembling of steel and prefabricated segments, and the necessity of phased modification of the existing walkway to Yuet Wah Street.

4. The estimated cost of the proposed elevated landscaped pedestrian deck is about \$118.4 million in MOD prices after excluding the costs of slope works, modification of the existing elevated walkways and the existing walkway to Yuet Wah Street, other ancillary works, consultancy fees, remuneration of RSS and contingencies. Based on the gross floor area of about 720 square metres (m²) (about 120 metres (m) long and 6 m wide), the estimated average cost of the proposed elevated landscaped pedestrian deck is approximately \$160,000 per m².

5. We list out the estimated construction cost of elevated walkways under two similar public works projects for reference. The estimated construction cost per m² of the deck structure with foundation (excluding lift and staircase) is adopted for suitable comparison with the elevated landscaped pedestrian deck under the proposed works –

PWP Item (date upgraded to Category A)	Length, Clear Width and Structural Materials of Elevated Walkways	Estimated Construction Cost (excluding lift and staircase) (in MOD prices)	
		Overall (\$ million)	Per m ² (\$ million)
206TB (upgrading currently sought from the PWSC)	Elevated landscaped pedestrian deck Length: about 120 m Width: about 6 m Structural material: Concrete and steel	118.4	0.16
822CL (partly upgraded from PWP Item No. 702CL) (Nov 2018)	Elevated walkway across the future Trunk Road T2 near MegaBox Length: about 140 m Width: about 6 m Structural material: Concrete	136.3	0.16
797CL (partly upgraded from PWP Item No. 469CL) (May 2016)	Elevated walkway across Prince Edward Road East connecting San Po Kong and Kai Tak Development Length: about 290 m Width: about 6 m Structural material: Concrete	237.8	0.14

(II) Implementation programme of the proposed works

6. We plan to invite tenders and commence the proposed works upon obtaining funding approval from the Finance Committee for target completion in around 4 years. It includes approximate half year for finalizing the MTR's requirements of protective measures to railway structures/installations and monitoring during construction for incorporation into the final tender documents; and completing the procedures for tender invitation and contract award. It is expected that the actual construction period is about 3.5 years after the commencement of works, which includes carrying out foundation works, construction of deck structure and roof, slope works, modification and connection of the existing walkway to Yuet Wah Street and the existing elevated walkways near the MTR Kwun Tong Station Exit C and Exit D, diversion of affected public utilities, carrying out associated road, drainage, landscaping and other ancillary works, etc. In view of the features and constraints of the proposed works as mentioned in paragraph 3 above, particularly considerations on minimizing impacts to railway services and Kwun Tong Road, we consider that the currently estimated construction period is reasonable.

**Development Bureau
Civil Engineering and Development Department
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