

**CONTROLLING OFFICER'S REPLY**

**THB(T)229**

**(Question Serial No. 3687)**

Head: (60) Highways Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Capital Projects

Controlling Officer: Director of Highways (Daniel K W CHUNG)

Director of Bureau: Secretary for Transport and Housing

Question:

1. What are the works progress, expenditure and manpower involved and the date of completion of the reclamation works for the Hong Kong Boundary Crossing Facilities (HKBCF) of the Hong Kong-Zhuhai-Macao Bridge (HZMB)? What are the works progress, expenditure and manpower involved, and the anticipated date of completion for the entire HZMB project?

2. What are the works progress, expenditure and manpower involved, and the date of completion of the works for the Tuen Mun-Chek Lap Kok Link (TM-CLKL) southern landfall? What are the works progress, expenditure and manpower involved, and the anticipated date of completion for the whole TM-CLKL project?

3. What are the works progress, expenditure and manpower involved, and the dates of completion regarding the works for the Tuen Mun Western Bypass (TMWB)? In 2017-18, will the Highways Department (HyD) conduct joint public consultation with other departments for the construction of the TMWB? What are the respective expenditure and manpower involved, and the anticipated dates of completion?

4. How effective are the bus-bus interchanges (BBIs) on Tuen Mun Road since their commissioning? What are the expenditure and manpower involved in the BBIs on Tuen Mun Road in 2017-18? Does the Government have any plan to construct BBIs on other roads, and what are the details and expenditure involved?

5. Please provide details of the investigation for the widening of Castle Peak Road - Castle Peak Bay. What is the anticipated commencement date of the construction works? Over the past 5 years, did the Government carry out public consultations in the areas affected? What were the details and expenditure involved? In 2017-18, will the Government continue to carry out public consultations in the areas affected? What are the details and estimated expenditure?

6. What is the works progress for the reconstruction and improvement of Tuen Mun Road? In 2017-18, what are the expenditure and number of staff involved, and the anticipated date

of completion for the aforesaid project?

7. Over the past 5 years, what were the details of the items completed, the actual expenditures incurred and the number of staff involved in the provision of barrier-free access (BFA) facilities for public footbridges, elevated walkways and subways under the Universal Accessibility (UA) Programme? In 2017-2018, what are the details of the items to be commenced under the UA Programme? What are the actual project expenditures and the number of staff involved?

Asked by: Hon CHAN Tanya (Member Question No. 516)

Reply:

1 - 3. The construction of the tunnel and artificial islands of the HZMB Main Bridge within the Mainland waters is still in progress. Its critical process involves the placement of 33 sub-sea tunnel segments and the final connection. As of 7 March 2017, all 33 sub-sea tunnel segments were placed. Given that the works site is in a complex sea environment, the project faces huge technical difficulties arising from the need to cater for wind speed and under-water current conditions. Its challenges include overcoming the inclement weather and sedimentation of the tunnel bedding conditions. The bridge section of the HZMB Main Bridge was connected in end-September 2016 and bridge deck surfacing works are underway. Given the immense scale of the surfacing works and the high technical requirements, the progress of works may also be affected by inclement weather. In addition, remaining works for the HZMB Main Bridge include the installation of public utilities and testing for commissioning.

As for the Hong Kong projects, reclamation for the HKBCF was largely completed in late 2016 while the remaining works of installing armour rocks and the removal of preloading materials are in progress. The 9 works contracts for the superstructures of the HKBCF are now in full swing: the construction of superstructures and installation of prefabricated roof segments are being carried out for the passenger clearance building; installation of precast bridge deck segments are being carried out for the land infrastructure works; construction of the vehicle clearance plaza, ancillary buildings and associated facilities are also in progress. As regards the Hong Kong Link Road (HKLR), bored piles, pile caps, piers and precast bridge deck segments for the marine and land viaducts have all been completed. The bridge decks of land viaduct have all been erected and stressing of their post-tensioning tendons is being carried out. The erection of bridge decks of the marine viaducts, construction of the tunnel section and at grade road works are also in progress. According to the latest works progress, the HyD assesses that the Hong Kong projects will be completed and ready for commissioning by end 2017.

In summary, the works for the HZMB Main Bridge as well as the projects of the three sides have encountered various difficulties and challenges, including risks in respect of technical challenges, extreme weather, works safety, works interface, etc. At this stage, to commission the project by end 2017, there are still certain problems that will have to be resolved. Without compromising the quality and safety of works, the HZMB Authority and the three sides are adopting every possible measure to overcome the difficulties encountered so as to proceed with their relevant projects. With the

further consolidated assessment by the Joint Works Committee of the Three Governments, the three sides strive to complete the HZMB project by end-2017 for early simultaneous commissioning, subject to factors such as the implementation of cross-boundary transport arrangements.

Based on the latest progress report submitted by the contractor of the TM-CLKL Southern Connection, the HyD anticipates that if no other unforeseen conditions arise in the future, all the works for the TM-CLKL Southern Connection can be completed in the first half of 2019 at the earliest. As for the Northern Connection, based on a preliminary assessment, if the contractor is fully co-operative and can complete a reasonable design amendment in a timely manner and expeditiously catch up with the work progress, the HyD and the consultants believe they can strive to complete the tunnel works contract in the end of 2019 at the earliest and all construction works of the TM-CLKL Northern Connection in 2020.

The approved project estimates for the construction of the HZMB Main Bridge, the Hong Kong section projects (i.e. HKBCF & HKLR projects) and the TM-CLKL are as follows:

<b>Project</b>	<b>Approved project estimate (\$ billion)</b>
HZMB Main Bridge (within Mainland waters)	9.28 (Hong Kong side's contribution)
HZMB HKBCF	35.895
HZMB HKLR	25.047
TM-CLKL <sup>Note</sup>	46.708

Note: This comprises the Public Works Programme (PWP) Item 6846TH TM-CLKL – detailed design, site investigation and advance works, and the PWP Item 6857TH TM-CLKL – construction works.

Regarding the TMWB, the HyD has consulted stakeholders many times on its alignment, portal and design in the past few years. Having considered the comments of various parties and upon further planning, the HyD briefed the relevant District Councils (DCs) and Rural Committee in the latter half of 2016 on the latest proposed alignment and is making preparation for the commencement of the investigation study and the preliminary design in the third quarter of this year.

The HyD deploys existing in-house staff resources to oversee the implementation of the HZMB Main Bridge, the Hong Kong section (i.e. HKBCF & HKLR projects) and the TM-CLKL projects, as well as carry out the investigation study and the preliminary design for the TMWB project.

4. The BBIs on Tuen Mun Road were fully commissioned in July 2013. They currently serve 29 regular franchised bus routes. On average, about 39 000 passengers make use of the BBIs daily, with about 23 000 passengers using the Tuen Mun bound BBI

and about 16 000 passengers using the Kowloon bound BBI. The BBIs are operating smoothly and are welcomed by the users. In 2017-18, the estimated expenditure for the Tuen Mun Road BBIs project is about \$3 million, mainly for the cost of the permanent toilet facilities whose construction is carried out by the Architectural Services Department. The toilet facilities (Tuen Mun bound) have been completed and opened for use by passengers whereas the toilet facilities (Kowloon bound) are estimated to be opened for use by passengers in the coming few months.

To encourage and facilitate passengers to interchange between different bus routes to enhance the efficiency of bus services, the Government is currently undertaking construction works for BBIs at the following 2 locations –

(a) BBI on Fanling Highway: The HyD is constructing a BBI on Fanling Highway Kowloon Bound near Ho Ka Yuen in tandem with the work for the widening of Fanling Highway. The works of the BBI have commenced in February 2017 and are expected to be completed in 2019. The estimated expenditure for the BBI in 2017-18 is about \$11.3 million.

(b) BBI at Tseung Kwan O - Lam Tin Tunnel (TKO-LT Tunnel): Under the TKO-LT Tunnel project, the Civil Engineering and Development Department will construct at the tunnel portal in Lam Tin a BBI and associated ancillary facilities next to the Administration Building of the Eastern Harbour Crossing. The BBI and ancillary facilities are anticipated to be completed and opened in 2021 together with the TKO-LT Tunnel. The TKO-LT Tunnel is currently undergoing land formation and thus the estimated expenditure of the entire TKO-LT Tunnel project in 2017-18 does not involve the cost for the BBI works.

The Government will continue to explore the provision of enhanced interchange facilities at other suitable locations with different stakeholders.

5. In support of the development of Tuen Mun, the Government originally scheduled the widening of Castle Peak Road - Castle Peak Bay project to start in 2016 for completion in 2019-20. However, as a Tuen Mun resident lodged a judicial review of the project in September 2015 and the relevant proceedings are still in progress, the implementation schedule need to be reviewed by the Government subject to the outcome of the judicial review.

The HyD conducted public consultations at the investigation stage from February to December 2013, and at the detailed design stage from January 2014 to August 2015. Various stakeholders including the Tuen Mun DC and residents of the estates along the road section were consulted. Subject to the outcome of the judicial review, the HyD will review the implementation of the project as well as arrangements about further consultation with the DC concerned.

6. The “Reconstruction and Improvement of Tuen Mun Road” project was substantially completed in December 2014. The estimated expenditure of the project in 2017-18 is about \$95 million, mainly for the expenditure on finalisation of the accounts with works completed and carrying out the small amount of remaining works. The design and supervision of works are carried out by consultants engaged by the HyD. The

HyD deploys existing staff resources to manage and oversee the implementation of the project.

7. The Government has been installing BFA facilities at public walkways (i.e. public footbridges, elevated walkways and subways maintained by the HyD), where technically feasible, for years (now known as the “Original Programme” under the UA Programme) in response to the recommendation of the Equal Opportunities Commission. Apart from continuing to implement the projects under the “Original Programme”, the Government invited the 18 DCs in the first half of 2013 to prioritise the new items in their districts proposed by the public through the “Expanded Programme” of the UA Programme which was introduced in August 2012. Under the “Expanded Programme”, each DC selected 3 public walkways for implementation. Currently, we are pressing ahead with the implementation of a total of 205 items under the UA Programme. As at 28 February 2017, 49 items were completed, 133 items were under construction, and 11 items were anticipated to commence in 2017-18. The remaining items will commence as soon as possible upon completion of detailed design and other related work.

Currently, the HyD is inviting the DCs to further nominate not more than 3 existing walkways in each district to be included in the next batch of items for implementation under the UA Programme. The walkways eligible for consideration by the DCs will no longer be confined to public walkways maintained by the HyD, provided that certain criteria are met.

The expenditure on the UA Programme in 2012-13, 2013-14, 2014-15, 2015-16 and 2016-17 was \$28.5 million, \$232.2 million, \$554.3 million, \$779 million and \$806.3 million (estimate) respectively, covering the costs for conducting technical feasibility studies / investigation works, design, construction works and supervision of construction. The estimated expenditure in 2017-18 is \$863.7 million. The design and supervision of the works are carried out by consultants engaged by the HyD while the HyD deploys existing staff resources to manage and oversee the implementation of the project.

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