# 政府總部運輸及房屋局

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# Transport and Housing Bureau

## **Government Secretariat**

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本局檔號 Our Ref.: THB(T)1/16/581/99

來函檔號 Your Ref.:

Secretary General
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong
(Attn: Ms. Sophie LAU)

Fax No.: 2978 7569

Dear Ms. LAU,

# Monitoring Work by the Government on the XRL Project

I refer to the letter dated 22 May 2014 from the Hon. Tony TSE to the Chairman of the Subcommittee on Matters Relating to Railways (RSC) that you forwarded to us on 26 May 2014. I have been authorised to reply as follows.

### Question (1)

The "monitoring and verification consultant" (M&V Consultant), Jacobs China Limited, engaged by the Highways Department (HyD), has adopted the "check the checker" approach in performing its monitoring role. Using a risk-based sampling approach, the M&V Consultant conducts monitoring and verification works systematically to verify whether the MTR Corporation Limited (MTRCL) had fulfilled their obligations under the Entrustment Agreement (EA) and implemented the entrusted works in accordance with their project management system for delivery of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) project. The M&V Consultant reports to HyD on a monthly basis, and has monthly progress meeting on their monitoring and verification works with HyD to report and discuss major areas of concerns about the works and their related risks. Moreover, the M&V Consultant reports to the HyD the progress of various works

contracts, their potential risks and concerns, as well as any progress delay.

Through the M&V mechanism and based on the reports made by the M&V Consultant, HyD learns of the progress of various works contracts and progress delay in different sections of works, any inadequacies on site such as insufficient labour resources and work fronts, as well as co-ordination problems in the works process. HyD has, time and again, urged the MTRCL to follow up such issues and implement effective delay mitigation measures. Under the MTRCL project management procedures, all proposed delay mitigation measures (DMMs) and delay recovery measures (DRMs) have to be approved by their internal Project Control Group (PCG) before implementation. The MTRCL would forward all modifications and changes to the XRL project with cost implications, including DMM/DRMs, to the HyD before they are approved. The HyD and the M&V Consultant would provide professional advice on the proposals and follow them up with the MTRCL.

HyD and the M&V Consultant have been using the multi-level monitoring mechanism to systematically monitor the implementation of the XRL project by the MTRCL. This includes monthly site visits to monitor the progress of various XRL works contracts and monthly Contract Review Meetings (CRMs) with site supervisory staff of the MTRCL. HyD and the M&V Consultant would enquire MTRCL about the latest position of the works contracts and discuss important issues (including DMMs and DRMs) that might have potential impacts on the progress of the project. Whenever a delay is observed, HyD would ask MTRCL to explain the causes and associated mitigation measures to catch up with the project programme. For instance, in the course of pile-removal works at the Nam Cheong Property Foundation in 2010, the contractor found that the straight piles as indicated in the record drawings were deformed and could not be removed by normal extraction methods. Having explored different options with the contractor, the MTRCL suggested adopting a new "Rotator and Wedge" extraction method to remove the piles. The DRMs proposed by the MTRCL were implemented upon HyD and PCG approval. HyD and the M&V Consultant closely monitored the effectiveness and application of the new method, visited the pile-removal site every month and held regular CRMs with the MTRCL to track the removal progress. By adopting the new method, the contractor successfully recovered the delay such that all piles were removed before the arrival of the tunnel boring machine without affecting the interfacing tunnel boring works.

Another example of DRMs is the temporary traffic management scheme (TTMS) implemented at Jordan Road (JOR). As the construction of diaphragm wall at north of JOR experienced delays due to adverse ground conditions, the original plan of diverting JOR northward under Contract 811B "West Kowloon Terminus Approach Tunnel (South)" could not be carried out as scheduled. If no DRM was implemented, the works would be delayed for about eight months. In view of the situation, the MTRCL took forward a DRM approved by HyD and PCG to first move JOR southward, allowing the contractor to construct the underground diaphragm wall at the original location of JOR while, at the same time, continue to complete construction of the diaphragm wall at north of JOR. Since the implementation of the TTMS in February 2012, HyD and the M&V Consultant inspected the site regularly to monitor the implementation of the DRM. With the TTMS, the contractor eventually managed to recover about six months of delay for the construction of the diaphragm wall at northern part of the West Kowloon Terminus.

Details of the monitoring mechanism and HyD's works in following up and verifying the various DRMs are set out in the Administration's papers submitted to the RSC on 2 May 2014 (LC Paper No. CB(1)1328/13-14(03)) and 15 May 2014 (LC Paper No. CB(1)1422/13-14(02)).

The Director of Highways (DHy) updates the Secretary for Transport and Housing (STH) on the XRL project progress at their regular monthly meetings about the works of HyD. DHy also reports to the STH at separate junctures any significant issues relating to the implementation of the XRL project.

#### **Questions (2 & 3)**

As mentioned above, HyD takes the M&V approach to monitor the MTRCL's implementation of the XRL project on the premise that the MTRCL has established a comprehensive management system under which numerous railway projects have been successfully implemented and micro-monitoring is thus deemed unnecessary. As the "check the checker" role, the team with 13-strong dedicated professionals set up under HyD has sufficient manpower to perform its monitoring role. However, we wish to point out that the M&V approach is different from the "project management" approach used in monitoring general works projects, as the former is a risk-based sampling approach deploying less manpower to verify major items of MTRCL's works under their project management system. To further strengthen its monitoring of the XRL project, since May 2014 HyD has requested the M&V Consultant to re-arrange the

manpower deployed for the monitoring work to perform more specific review and verification of the progress and costs of the XRL project.

The MTRCL submitted a paper to the Legislative Council in May 2014, stating that the revised target commissioning of the XRL project for passenger operations by the end of 2017. So far, the MTRCL has submitted the latest project programme, which is being comprehensively reviewed and verified by HyD and the M&V Consultant to assess whether the MTRCL could deliver the project by the newly proposed completion date. As regards the latest estimate of the project costs, HyD has requested the MTRCL to provide supplementary information and justifications in details. HyD and the M&V Consultant will scrutinize and assess such information once received from the MTRCL.

Regarding the overall review of the XRL project, the Chief Executive (CE) has appointed an Independent Expert Panel to conduct a thorough examination of the project management and cost control mechanism and practices of the MTRCL, as well as the existing project supervision mechanism adopted by the Government. The objective is to identify problems and the reasons behind them (including possible human factors), as well as to make recommendations on improvement. The Panel is chaired by the Hon. Mr. Justice Michael HARTMANN. The two other members of the Panel, Mr. Peter HANSFORD and Prof. Andrew J WHITTLE, are both overseas experts in the engineering field. The Panel commenced its work in June this year and the review is expected to be completed by end November. The Panel will submit a report to the CE and the report will be made public. In the event that human factors are involved, the Administration or the MTRCL will take separate action to pursue liabilities.

Yours sincerely,

(Jackson SIN) for Secretary for Transport and Housing

c.c. by fax

Mr. Henry CHAN, Principal Government Engineer/Railway Development, HyD

(Fax: 2714 5297)