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18 January 2011

The Secretary General
Legislative Council Secretariat
Legislative Council Building
8 Jackson Road, Central
Hong Kong
(Attn: Ms. Joanne MAK)

Dear Ms. MAK ,

Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways
Supplementary Information for Funding Application for the Shatin to Central Link – Advance Works

When the LegCo Subcommittee on Matters Relating to Railways discussed the item on the Shatin to Central Link (SCL) railway and non-railway works on 7 January 2011, some members requested the Government to provide information on the financial arrangement of the SCL. As the information requested is related to the above funding application, we have provided the information by incorporating it into the Public Works Subcommittee papers nos. PWSC(2010-11)34 and PWSC(2010-11)35.

In addition, some members were concerned with design and engineering matters of the SCL and requested the Government to provide supplementary information. The information includes whether the change from 12-car train to 9-car train will reduce carrying capacity of the East Rail Line, matters related to

station entrances in Kowloon City, matters related to underground stratum resumption in Kowloon City and residents of Rhythm Garden's concern over the proposed stabling sidings in Diamond Hill, etc. As the requested supplementary information is not related to the above funding applications, we now submit the supplementary information separately for the perusal of the members.

Yours faithfully,

(C W CHOW)
for Secretary for Transport and Housing

c.c. PGE/RD, HyD (Attn: Mr. Henry Chan) (Fax: 2714 5297)
MTRC (Attn: Mr. Henry Lam) (Fax: 2795 8410)

Funding Application for Shatin to Central Link – Advance Works
Supplementary Information

(I) Whether the Change from 12-car Train to 9-car Train will Reduce Carrying Capacity of the East Rail Line

1. At present, the busiest section on the East Rail Line (ERL) is the Tai Wai section towards Kowloon Tong. According to the passenger distribution analysis, 60% of the southbound passengers travelling (including East Rail Line and Ma On Shan Line) from Tai Wai to Kowloon Tong is heading for central Kowloon, 15% heading for east Kowloon and 20% crossing the harbour to Hong Kong island.

2. The Shatin to Central Link (SCL) Tai Wai to Hung Hom section will extend the Ma On Shan Line (MOL) from Tai Wai to east Kowloon via Diamond Hill, Kai Tak, To Kwa Wan, Kowloon City, Ho Man Tin and Hung Hom. When this section of the SCL is completed for operation in 2018, it is estimated that approximately 23% (about 74 000 passengers/day) of the southbound passengers will switch to use the SCL to east Kowloon and Hong Kong east. This will help alleviate the passenger loading on the southbound service of the ERL.

3. From 2018 to 2020, the re-distributed southbound travelling pattern will be gradually established. When the SCL harbour crossing section is completed in 2020, the whole ERL signalling system will be upgraded to enable the ERL train headway to reduce from 3 minutes to 2 minutes during peak hours. Although the train formation will be reduced from 12-car to 9-car train, with the improvements made to the service headway, the carrying capacity will have room to enhance. Take for an example, assuming 3 minute interval, the current 12-car train formation will provide 20 train services per hour, giving a total carrying capacity of 240 cars. With the 9-car train formation, if the train frequency is increased to 27 trains per hour, the carrying capacity will then increase to 243 cars. It is estimated that the maximum carrying capacity will be able to increase by about 12 000 passengers per day.

4. As mentioned above, when the SCL Tai Wai to Hung Hom section is in

operation in 2018, it is estimated that approximately 23% (about 74 000 passengers/day) of the southbound passengers will switch to use the SCL travelling to east Kowloon and Hong Kong east. Hence some of the train capacity of ERL is freed for absorbing new passengers. Coupled with the increase in train frequency and the increase in carrying capacity (about 12 000 passengers per day) in 2020, the ERL will have enough capacity to meet the increased passenger demand due to growth in population along ERL and MOL as well as the cross boundary passengers from the Mainland.

(II) Matters Related to Number of Station Entrances in Kowloon City

1. Railway has been the backbone of the public transport system in Hong Kong. Coupled with other modes of transport and the connection of the existing pedestrian walkway system to the railway system, the efficiency of the overall transport network is enhanced. In general, the design concept of Hong Kong's railway lines is to provide direct railway service to residents in the nearby areas of the stations. Residents within these areas can make use of the pedestrian walkway system to access the railway station.

2. As every railway station commands different geographic environment, community characteristics, existing development, road space and condition, it is difficult to compare the number of entrances among stations. Further, the layout of a station also affects the design of its entrances. In general, the following will be considered in the planning of station entrances:

   - The entrance should be placed at strategic location with high passenger flows and connected with the pedestrian network and other street facilities so as to provide a direct and convenient link between the station and residents in the nearby areas.

   - The station entrance should be large enough to cope with passenger flows during peak hours with allowance for future growth in passengers. It should also meet the requirements for emergency evacuation.

   - Station entrances will take up space at ground level to allow passengers from station concourse can reach the pedestrian walkway system at ground level. In urban areas which has been developed, it is particularly difficult to locate a suitable site for an entrance as the entrance will inevitably take up road space or public open areas thus causing disruption to shops and community at street level. Hence there is a need to take a balanced consideration in deciding the numbers and locations of station entrances.

   - The design of station entrance shall be technically feasible.

3. Members of the Railway Subcommittee had taken Sham Shui Po Station as an example for comparison with the number of proposed station entrances for SCL stations. The Sham Shui Po Station has four entrance connections at both ends of the station concourse. It is noted that at the time when the station was built, the district was already densely developed with buildings. Due to space constraints at street level, the entrance staircases leading to the street level were split into two so as to provide enough entrance width for passenger flows. It is also noted that the

section of Pei He Street and Kwai Lam Street were permanently closed off to make space for the station entrances.

4. The SCL Kowloon City Road section has three stations – Ma Tau Wai Station, To Kwa Wan Station and Kai Tak Station. Ma Tau Wai Station is sited in a developed urban area. The proposed scheme will have four entrance connections linking with the station concourse. The proposed station entrances are large enough for meeting the future growth in passenger volume. As the Station is surrounded with buildings, the space available for station entrances is quite limited. The proposed station entrances will have to take up some existing road space and open areas. In order to meet the passenger flows during peak hours, the proposed station entrances will also provide with staircases as well as escalators leading to the street level. As the existing environment at street level is already constrained, provision of extra entrances cannot be further accommodated.

5. The To Kwa Wan Station also has four entrance connections at station concourse. They branch out to a total of seven station entrances. One of the entrance connections will be extended to go underneath a few major trunk roads including Ma Tau Wai Road, Argyle Street and Prince Edward Road. Station entrances will be provided at the footpath of these trunk roads for the convenience of the nearby residents.

6. The Kai Tak Station will be located in the pedestrian precinct of the future Kai Tak Development Area. There will be 3 station entrances with escalators linking with the precinct at ground level. Provision has also been made in the station design for adding another entrance connection to the future commercial development area.

(III) Matters Related to Underground Stratum Resumption in Kowloon City

Public Consultation

Since the Chief Executive in Council approved the planning and design of the SCL to proceed in March 2008, the Government and the MTR Corporation Co. Ltd. (MTRCL) had launched various public consultation activities, such as attending District Council (DC) meetings, organising roving exhibitions and holding public forums, etc. In the DC consultation papers and project briefs published under these activities, it was mentioned that underground stratum resumption might be required for the construction of SCL in developed urban areas. In relation to the underground stratum resumption in Kowloon City/To Kwa Wan areas, the proposed railway alignment was presented in the consultation papers to Kowloon City DC in May 2009 and published in the Digest for the SCL Kowloon City Section in June 2009. These documents were also distributed to the local communities in mid-2009 and uploaded to the SCL website for public's view.

2. The proposed SCL alignment will pass underneath seven residential buildings at Ko Shan Road and Shansi Street. To inform the affected building owners and follow up with their concerns, the Government issued letters to the Incorporated Owners of the affected buildings and posted the letters on the notice boards of each building on 26 November 2010, the date of first gazette of the SCL project. Since then, the Government and the MTRCL has attended more than 40 meetings with residents, District Councils, Incorporated Owners and other relevant parties, 10 of which are related to stratum resumption in Kowloon City. We will continue to arrange similar meetings in the forthcoming future and explain the details of underground stratum resumption to the public.

Claim for Compensation Arising from Underground Stratum Resumption or Temporary Occupation of Land

3. It is inevitable that underground stratum resumption or temporary occupation of land will be required to facilitate the construction of a railway within the well-developed urban areas. Under the Railways Ordinance (Cap. 519), any person who has a legitimate compensatable interest arising from such underground stratum resumption or temporary occupation of land can claim compensation under the provisions of the Ordinance. A person who claims to

be entitled to compensation under this Ordinance may serve a notice to the Secretary for Transport and Housing a written claim before the expiration of one year from the date on which easement or right is created.

Claim Procedures

4. We understand that affected residents may have concern that the claim procedures under the Railway Ordinance might be complicated and might involve legal proceedings. However, we will explain to the affected residents that the claims could be settled through negotiation and agreement instead of through legal proceedings. Given that a claimant could furnish the Administration with sufficient information such as the name of the claimant, description of the land, nature and particulars of claim etc., the Administration would consider and settle the claim in accordance with the Railway Ordinance. In case a claimant is entitled to such compensation, the costs involved in preparing for the claim such as professional fees, could also be reimbursed. For a claim which is not served on the Secretary before the expiry of the specified period, the Secretary may, if she is satisfied circumstances exist that she considers reasonable, accept service of a claim after the specified period in accordance with Sections 33(1) and (5)(b) of the Ordinance.

Compensation for Loss of Re-development Potential

5. If any person who claims to be entitled to compensation as a result of his redevelopment works carried out within the future railway protection zone, then in accordance with item (9) in Annex II of the Ordinance, he shall serve on the Secretary a written claim before the expiration of one year from the date on which the redevelopment of his building is completed. The matters for which compensation may be claimed shall be an amendment required or a condition imposed, under the Ordinance to avoid incompatibility with the works for the construction of a railway.

6. However, it should be noted that whether the re-development potential of a building is being affected have to be examined case by case. Factors shall include the existing ground conditions, design of the re-development, area of land, levels and location of the SCL tunnels etc. If the existing building was constructed at the maximum allowable plot ratio, higher plot ratio will not be allowed for the concerned re-development. In addition, the re-development potential is also governed by the terms specified on the Land Lease, Outline Zoning Plans and Building (Planning) Regulations, the

distribution of the ownerships of the building and other economic reasons etc.

7. In fact, the situation of the Ma Tau Wai Road at Kowloon City is not unique. A number of buildings in Hong Kong have been successfully re-developed above railway protection zone. For example, the re-development of a 25-storey building on Wing Lok Street at Sheung Wan is above the tunnel of the Island Line which is 23 m below ground and within soil stratum. Another example is the re-development of a 32-storey building on King's Road where the tunnel of Island Line is 22 m below ground and within the rock stratum. Currently, a project involving re-development of a 34-storey building above the Island Line on Des Voeux Road West is also in progress.

(IV) Residents of Rhythm Garden's Concern over the Proposed Stabling Sidings in Diamond Hill

1. Request for a Fully Sunken Diamond Hill Stabling Sidings

The impacts of constructing a fully sunken Diamond Hill stabling sidings are as follows:

a) Environment: Fully sunken stabling sidings will generate 250 000 m^3 of additional spoil due to deeper excavation. The quantity is sufficient to fill up 100 standard swimming pools. The additional spoil generated will further bring impacts to the environment of the local communities;

b) Traffic: The additional spoil will require an extra of 50 000 truck-trips which will not only affect the environment and the local communities, but will also pose additional burden on the traffic;

c) Programme: The SCL construction programme would have to be extended by one year if a fully-sunken stabling sidings were to be constructed. The commissioning of the SCL will be delayed by one year as a result;

d) Cost: The construction cost of SCL will increase by about $1 billion;

e) Ventilation shaft: With the fully sunken scheme, 7 additional ventilation shafts with a height of 11 m will be required to ventilate the fully sunken stabling sidings and will cause significant concerns to the residents irrespective whether these ventilation shafts are facing Lung Cheung Road or Choi Hung Road; and

f) Visual: If the stabling sidings was built underground, the ventilation facilities could not be integrated with the external walls of the stabling sidings and will cause adverse visual impact to the nearby residents.

2. Visual Impact of the 5m High Wall Facing Rhythm Garden

The separation between Block 10 to 12 of Rhythm Garden and the Diamond Hill stabling sidings is about 140 m. There will be little visual

impact arising from the 5 m external wall of the stabling sidings. Block 1, being the closest, is still 40 m away from the proposed stabling sidings location. MTRCL will enhance the design of the ventilation facilities so that it will blend with the external landscaping and greening measures.

3. Noise and Air Quality Impact

In response to the concerns of the public, MTRCL has proposed to lower formation of the stabling sidings to Lung Cheung Road levels in order to reduce the impact on environment, traffic and visual.

4. Lack of Reserved Space for Choi Hung Road Widening

According to the traffic impact assessment report conducted by MTRCL and Civil Engineering and Development Department respectively on the Diamond Hill stabling sidings and Kai Tak Development, apart from the need to improve the signalized junctions between Choi Hung Road and Tai Yau Street and between Po Kong Village Road and Choi Hung Road, the developments on the above sites will not pose adverse traffic impact on Choi Hung Road.

In addition, the Government has reserved sufficient space for the possible future widening and provision of pedestrian walkway along Choi Hung Road in accordance with the Outline Zoning Plan for Tsz Wan Shan, Diamond Hill and San Po Kong when designing the layout of the stabling sidings at Diamond Hill.

Transport and Housing Bureau
January 2011