

File Ref: ETWB(T)CR 10/1016/99

## Legislative Council Panel on Transport

### Subcommittee on Implementation of Railway Development Projects

### Progress Report on the Shatin to Central Link

#### INTRODUCTION

This paper updates Members on the progress on the scheme design of the Shatin to Central Link (SCL).

#### BACKGROUND

2. The SCL is one of the priority rail projects recommended in the Railway Development Strategy 2000 (RDS-2000). It forms a new rail link between Tai Wai and the Central Business District in Hong Kong Island through the proposed new development area in South East Kowloon.

3. Since the award of the SCL to KCRC in June 2002 based on its Conforming Proposal, they have been undertaking a comprehensive review on the SCL scheme. The purpose of the review is to develop a Final Proposal for the SCL that would best serve the public and at the same time entails commercial returns. KCRC indicates that the Final Proposal would be ready in the next few months for submission to the Government.

4. This Council was briefed on the progress of the SCL in September 2003.

#### DESIGN PROGRESS

##### (a) Latest Update

5. A detailed report on the scheme design of the SCL, prepared by KCRC is at the **Annex**.

Annex

**(b) Rail Service for Whampoa**

6. KCRC has submitted a proposal of extending the rail service to Whampoa using a light rail APM system. We have also invited MTRCL to undertake further planning on extending the Kwun Tong Line to Whampoa via Homantin. A decision on this rail link will be made in conjunction with the SCL scheme design.

**(c) East Rail across the Harbour Option**

7. KCRC has completed the study on the East Rail across the Harbour Option and submitted a report to Government for consideration. KCRC's preliminary findings indicate that this option would provide better transport benefit to the community, and the simpler interchange arrangement at Hung Hom will make rail operation more manageable. We are now examining the KCRC proposal. In doing so, we will need to consider the relative merits of the revised scheme in terms of interchange convenience for passengers, operational efficiency and technical feasibility.

**COST ESTIMATE**

8. The latest estimated cost of the current SCL proposal is about \$35.5 billion. KCRC has indicated that SCL remains financially viable and can be wholly financed by internal resources and debts.

**PROGRAMME**

9. The current programme is to finalise the scheme for SCL in mid 2004 and to gazette the scheme under Railways Ordinance (RO) in early 2005. Our target is to start works in late 2005 for completion in stages within the window of 2008-2011 as originally envisaged in RDS2000.

**PUBLIC CONSULTATION**

10. KCRC will widely consult the concerned statutory and consultative bodies and the local communities in finalising the scheme design.

## CONCLUSION

11. Members are requested to note the latest situation regarding the implementation of the SCL.

Environment, Transport and Works Bureau  
February 2004

**Legislative Council Panel on Transport**  
**Subcommittee on Matters relating to Railways**

**Report on the Scheme Design of Shatin to Central Link**

**Introduction**

The purpose of this paper is to inform the Subcommittee of the current status of the design of the Shatin to Central Link (SCL) project.

**Background**

2. Upon the award of the SCL project by the Government in June 2002, the Corporation proceeded to engage engineering consultants, surveyors and contractors to conduct engineering studies for the project. Following consultations with District Councils and Government, the Corporation also explored the feasibility of providing additional stations to better serve the Whampoa and Tsz Wan Shan areas as well as the relocation of the SCL Admiralty station away from Tamar site.

3. During the design development stage of the SCL project, the Corporation together with the Government has explored various options with a view to improving the transport performance of the SCL based on the latest planning parameters. In addition, as an attempt to improve on the 3-way interchange at the proposed Hung Hom Mass Transportation Centre (MTC), the option of extending the East Rail (ER) across the harbour to improve the interchange at Hung Hom MTC was studied.

4. On 29 September 2003, the Administration advised the Subcommittee that the Corporation was carrying out scheme design studies on the option of ER across the harbour and other improvements to the SCL proposals. The studies are now substantially complete and the Corporation is in a position to report on the latest development and recommendations of the proposals.

**Original Proposal**

5. The SCL Project Brief requires a railway link from Tai Wai to Central. The Corporation had submitted a proposal to extend the Ma On Shan (MOS) Railway from Tai Wai (TAW) to Hung Hom MTC via the East

Kowloon Line (EKL) and the Fourth Rail Harbour Crossing (FHC) to Central. The Original Proposal envisaged that the Hung Hom MTC would be a 3-way interchange station for the ER, the SCL and the West Rail (WR) via Kowloon Southern Link (KSL).

## **Preferred Scheme**

6. The Corporation now comes up with a Preferred Scheme as shown in **Appendix**. The salient points of the scheme are appended below.

Appendix

### **East Rail (ER) across the Harbour**

7. As shown in Appendix, the Preferred Scheme with the ER across the harbour option consists of a north-south railway from Lo Wu to Central by extending ER across the harbour; and an extension of MOS Rail from Tai Wai to Hung Hom MTC via the EKL to serve the population in the southeast Kowloon.

8. Compared with the SCL Original Proposal, the railway alignment of the Preferred Scheme is the same as the Original Proposal. The key differences are:

- (a) ER passengers, including cross boundary passengers from Lo Wu and Lok Ma Chau, will have a direct link to Hong Kong Island, with the provision of a north-south railway corridor.
- (b) Extension of MOS Rail to Hung Hom MTC and through running to Tuen Mun via KSL and WR will provide an east-west railway corridor, thus giving MOS Rail and EKL passengers a direct link to Tsim Sha Tsui, West Kowloon and Northwest New Territories.
- (c) MOS Rail and EKL passengers travelling to Hong Kong Island will transfer at Hung Hom MTC or Tai Wai.
- (d) The proposed Hung Hom MTC will be simplified from a 3-way to a 2-way interchange.

9. The key benefits of the ER across the harbour option are:

- (a) With the new proposal, the number of passengers required to transfer at Hung Hom MTC in 2016 will be reduced by 46% from 78,000 to 42,000 during peak hour or from 636,000 to 337,000

passengers each day. In other words, around 300,000 passengers a day will benefit from the direct links and require one less interchange.

- (b) Hung Hom MTC will provide a much more convenient interchange for passengers compared with the 3-way interchange of the Original Proposal.
- (c) For ER, the existing 12-car train will be modified to 9-car train with an enhanced signalling system to increase the maximum hourly train frequency from 27 trains to 34 trains during peak hours. The scheme therefore provides ER passengers with double benefits. They will be able to travel to Hong Kong Island directly and will also enjoy greater convenience from increased train frequency.
- (d) The Preferred Scheme also provides an effective and direct east-west railway corridor from Tuen Mun to Wu Kai Sha.
- (e) The Preferred Scheme will attract more passengers, estimated to be 62,000 more per day in 2016, than the Original Proposal. Although the project cost of the Preferred Scheme is slightly higher, the financial performance has no material change compared with the Original Proposal, taking into consideration the revenue from the additional patronage.
- (f) For the closer integration between Hong Kong and the Mainland following the implementation of the CEPA, the demand for cross-boundary traffic is expected to increase in coming years. The improved ER service and the direct link between Lo Wu and Hong Kong Island will definitely benefit the long-term development of Hong Kong.

10. Considering the benefits gained by the ER across harbour option, KCRC has proposed to the Government that this option be adopted in the SCL Final Scheme.

### **Interchanges with MTR**

#### **Diamond Hill Station (DIH)**

11. A new station, DIH, will be built next to the MTR DIH Station, MOS Rail and EKL passengers who wish to use the MTR Kwun Tong Line may access the station via pedestrian subways. The proposed SCL DIH

Station layout and connection with the MTR DIH Station are being reviewed jointly with MTRCL.

### **Admiralty East Station (ADE)**

12. The Original Proposal anticipated a station to be constructed at the Tamar site. Since this is not possible, KCRC has identified a new location for a station to be located adjacent to the east of the MTR Admiralty Station.

### **Other Developments**

#### **Causeway Bay North Station**

13. According to the Original Proposal, the southbound cross-harbour passengers going to Island east will have to travel to Admiralty for transfer to MTR before they can continue their eastbound rail journey. This is not preferable in terms of passenger convenience. Moreover, as a shopping and commercial centre, Causeway Bay is the destination for a great number of passengers. We therefore are actively exploring the feasibility of providing a station along the busy Gloucester Road.

14. Our initial study revealed that it would be very difficult to build a station there. We are now working on the scheme design for the station. The public will be consulted and the Corporation will also work with the related government departments closely before the scheme is finalised.

#### **Tsz Wan Shan Station (TWS)**

15. Due to the level constraint of the MTR DIH Station, the TWS Station has to be located 100m below the ground level which is not easily accessible for the travelling public. In the event of emergency, evacuation of passengers will be difficult. Extensive investigation of the ground conditions confirmed the absence of competent rock suitable for the construction of a station carven. Technically, exceptional and high-risk construction techniques have to be deployed for the construction of the station. Therefore, the Corporation does not consider it prudent to propose such a station.

16. The Corporation has planned to develop a dedicated above ground automated people mover (APM) link between DIH Station and Tsz Wan Shan area. This 0.9km link will be capable of transporting up to 6,000 passengers per hour. The journey time from TWS to DIH will be about 3 minutes. The APM terminus will be located above the KCR DIH Station allowing convenient interchange with both the KCR and MTR stations. The system, similar to the

one at the Chek Lap Kok Airport terminal which is unmanned with vehicles running on rubber tyres, will provide direct access for Tsz Wan Shan residents to the railway network.

### **Whampoa People Mover System**

17. Similar to Tsz Wan Shan, the Corporation has also considered the provision of a people mover system for the Whampoa area.

18. The system will have an ultimate capacity of 5,000 passengers per hour and can cover the 1.1km route in less than 4 minutes. The proposed alignment will be above ground from Hung Hom MTC to Hung Hom South Road and underground thereafter to Hung Hom Road for a terminus and a depot at grade near Man Yue Street. The system will consist of three stations including an above ground station at Hung Hom MTC, an underground station near Tak Man Street and the Terminus.

### **Ma Tau Wai Station (MTW)**

19. The Original Proposal has five stations in East Kowloon located at Diamond Hill, Kai Tak, To Kwa Wan, Ma Tau Wai and Ho Man Tin. Due to physical constraints, the latter four stations are located within a distance of 2.7km.

20. The To Kwa Wan Station's location and width are dictated by the existing Airport Tunnel, the width of To Kwa Wan Road and the existing buildings, resulting in a three level station with the lower platform 35m below ground.

21. There will be very high risk to existing buildings if the Ma Tau Wai Station is constructed at the location chosen originally due to low rock head identified by recent site investigation and the building foundation records obtained from the Buildings Department. Therefore there is a need to shift the station 340m northwards and locate it in rock. However such shift will reduce the distance between the Ma Tau Wai and To Kwa Wan stations to about 320m end to end.

22. A more detailed review of the future population growth showed that the To Kwa Wan Station hinterland located at the edge of South East Kowloon Development (SEKD) has a particularly low current and future population. In view of the close proximity of the two stations, the Corporation thus decided that the To Kwa Wan Station and Ma Tau Wai Station be combined. The Corporation will also keep in view the SEKD review to see if



and how the Preferred Scheme can be improved to serve the population centres in SEKD in future.

### **Central South Station**

23. The ground investigation information confirms that the original location of the proposed Central West Station will be in soft and difficult ground conditions. One possible location of the station, now being investigated, will be south of Upper Albert Road. Details of the station layout and entrance locations at Queen's Road Central are still being developed.

### **Programme**

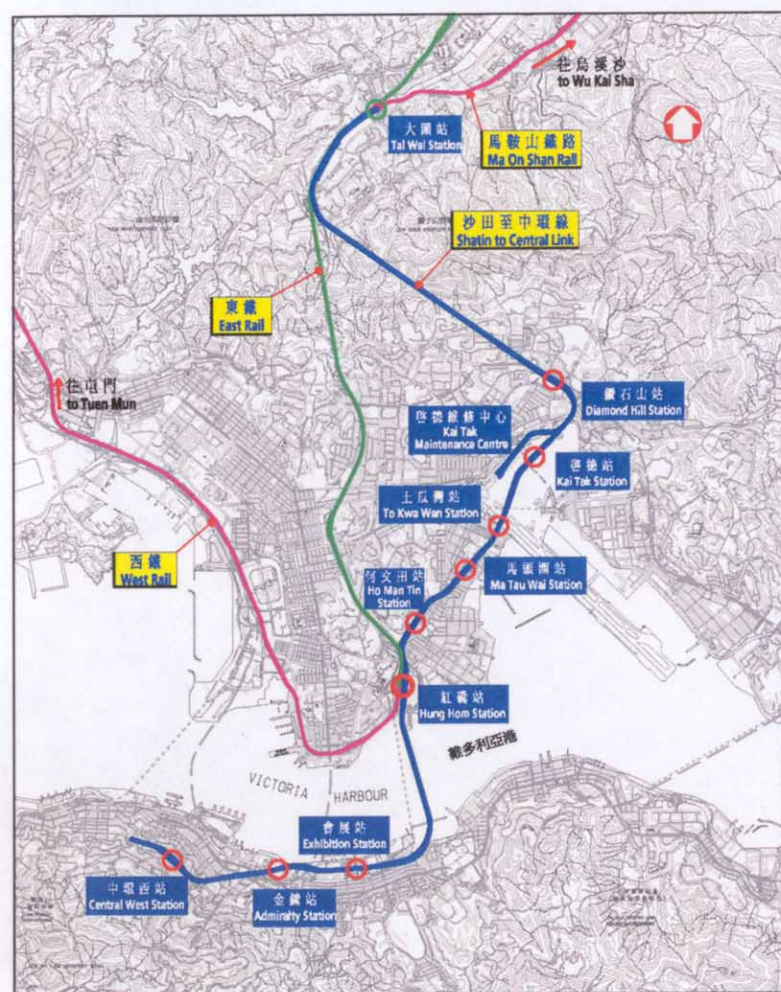
24. The SCL is a major investment to cater for the long-term transport needs of Hong Kong. The design development that has taken place and the proposed changes have to be reviewed carefully before a Final Scheme can be concluded. It is expected that the SCL project would take about seven years to complete after the Final Scheme has been concluded. Target date for completion can still be within the window originally suggested in RDS-2000, i.e. by 2011, if a final decision to proceed can be made by mid-2004.

### **Financial Implication**

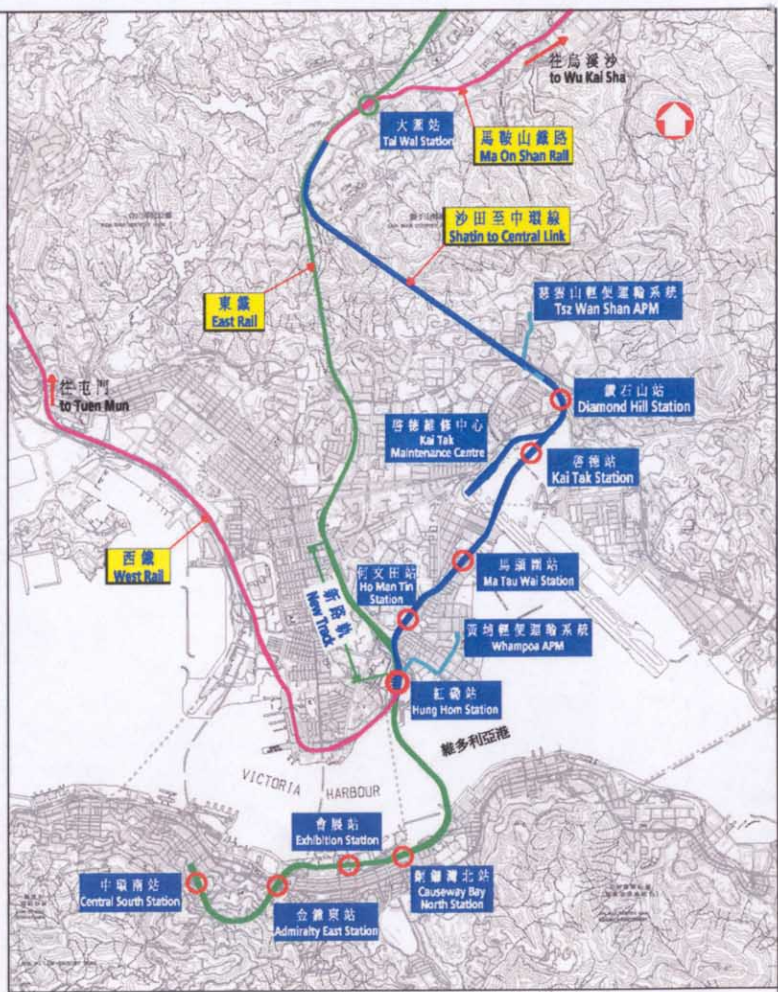
25. According to the current estimate, the project cost of the Preferred Scheme is \$35.5 billion. With the additional patronage generated, the financial performance of the Preferred Scheme meets the requirement of the SCL Project Brief and has no material change compared with the Original Proposal. The Preferred Scheme will be fully funded by the Corporation. There will be no requirement for Government's financial support.

Kowloon-Canton Railway Corporation  
February 2004

-----



ORIGINAL PROPOSAL 原來方案



PREFERRED SCHEME 建議方案