## Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

# Progress Update of the Construction of the West Island Line, South Island Line (East) and Kwun Tong Line Extension

#### Introduction

This paper reports to Members on the progress of the main construction works of the West Island Line ("WIL"), South Island Line (East) ("SIL(E)") and Kwun Tong Line Extension ("KTE") (as at 30 September 2015).

#### Background

#### WIL

2. WIL is an approximately three-kilometre long railway extension of the existing Island Line running from Sheung Wan Station to Kennedy Town Station with two intermediate stations at Sai Ying Pun and the University of Hong Kong (the alignment is at **Annex 1**). In 2009, the estimated capital cost of WIL was \$15,400 million (in December 2008 prices). According to the estimation of the MTR Corporation Limited ("MTRCL") in November 2014, the latest capital cost of WIL is \$18,500 million (in money-of-the-day prices).

## SIL(E)

3. SIL(E) is a new railway corridor running from South to North of Hong Kong Island. It starts from South Horizons on Ap Lei Chau to Admiralty via Lei Tung, Wong Chuk Hang and Ocean Park with a total length of about seven kilometres (the alignment is at **Annex 2**). SIL(E) will connect the MTR Island Line, Tsuen Wan Line and the future Shatin to Central Link ("SCL") at Admiralty Station. The existing Admiralty Station will be expanded to form an integrated station for the four lines to provide seamless interchanges for passengers. In 2011, the estimated capital cost of SIL(E) was \$12,400 million (in December 2009 prices). MTRCL advised in November 2014 that the cost had increased to \$15,200 million (in money-of-the-day prices). According to the report submitted by MTRCL to the Legislative Council (LegCo) Subcommittee on Matters Relating

to Railway (RSC) in August 2015, the estimate of the construction cost of SIL(E) had been further revised upward to \$16,900 million (in money-of-the-day prices) due to the complexity of the project and continued challenges encountered.

# <u>KTE</u>

4. KTE is an approximately 2.6-kilometre long railway extension of the existing Kwun Tong Line running from Yau Ma Tei Station to the new Ho Man Tin Station and Whampoa Station (the alignment is at **Annex 3**). In 2011, the estimated capital cost of KTE was \$5,300 million (in December 2009 prices). Owing to the complexity of the project and continued challenges encountered, in the report submitted by MTRCL to the LegCo RSC in August 2015, the estimate of the construction cost of KTE had been adjusted upward to \$7,200 million (in money-of-the-day prices).

# **Project Implementation and Funding Mode**

5. WIL, SIL(E) and KTE, being the extensions of the existing railway networks owned by MTRCL, are 'ownership' projects. Under the 'ownership' approach, MTRCL will be responsible for the financing, design, construction, operation and maintenance of these railway projects, and will own the railways. The Government and MTRCL signed the Project Agreement for WIL in July 2009, and the Project Agreements for SIL(E) and KTE in May 2011. The target commissioning dates are August 2014 for WIL, and December and August 2015 for SIL(E) and KTE respectively.

6. The construction cost of the railways is so enormous that WIL, SIL(E) and KTE are not considered financially viable based on their fare and non-fare revenues alone. Funding support to MTRCL is needed from the Government to bridge the funding gaps<sup>1</sup> of the projects.

7. To implement SIL(E) and KTE projects, the Government granted the

<sup>&</sup>lt;sup>1</sup> A railway is considered not financially viable if the present value of all its projected revenues net of projected expenditures falls short of the expected return on capital. During the initial public offering ("IPO") of MTRCL in 2000, the Government acknowledged to investors through the IPO Prospectus that the return required by MTRCL for any new railway project would ordinarily be between 1% and 3% above the Weighted Average Cost of Capital ("WACC"). This shortfall is known as the funding gap.

property development rights under the 'Rail-plus-Property Model' to bridge the funding gaps of the projects with caution that the land to be granted to MTRCL should not be more than what is required to bridge the funding gaps. As such, the Government granted in 2011 the topside property development rights at Wong Chuk Hang Depot and Ho Man Tin Station for the implementation of SIL(E) and KTE projects respectively.

8. Being granted the property development rights, MTRCL is responsible for all the costs of the property development as well as the construction and operating costs of the railway projects. In addition, it has to bear long term risks in financing the projects, operating the railways, and market fluctuations in rail and property developments. The design philosophy of the 'Rail-plus-Property Model' is to strike a fair balance of risks and benefits between the Government and MTRCL. As the SIL(E) and KTE are ownership projects, MTRCL will be responsible for the additional expenditure arising from the delay of the railway works.

9. For WIL, due to the lack of suitable sites for property development along or adjacent to the alignment, the Government decided in 2009 to provide a non-recurrent capital grant of \$12,700 million (Net Present Value in June 2009) as the ceiling of the funding support to bridge the funding gap of the project.

## **Essential Public Infrastructure Works related to Railway Projects**

10. In order to tie in with the commissioning of WIL, SIL(E) and KTE, the Government also entrusted the implementation of the associated 'Essential Public Infrastructure Works' ("EPIW") to MTRCL. They include construction and improvement of the pedestrian and linking facilities for providing convenient access to railway stations so that the consequential social and economic benefits of the railways can be fully realised. EPIW, which are constructed in parallel with the railway works, include:-

# EPIW of WIL (Layout plan at Annex 4)

- a covered pedestrian link at Sands Street, including a lift tower at the junction of Sands Street and Rock Hill Street with a single-way escalator;
- (ii) a footbridge across Pok Fu Lam Road for connecting to the

University of Hong Kong Centennial Campus; and

(iii) a boarding and alighting area for green minibuses at Kennedy Town Station.

## *EPIW of SIL(E)( Layout plan at Annex 5)*

- (i) construction of a public transport interchange underneath Wong Chuk Hang Station; improvement of the road network in the vicinity of Ocean Park Station and Wong Chuk Hang Station;
- (ii) modification of a section of Wong Chuk Hang Nullah between Ocean Park Road and Nam Long Shan Road;
- (iii) construction of a covered footbridge connecting Wong Chuk Hang Station with the adjacent industrial area and a covered footbridge linking the western part of Ap Lei Chau Estate to Yi Nam Road near Precious Blood Primary School; and
- (iv) construction of a pedestrian link to Aberdeen Channel Promenade and improvement of the road junctions of Ap Lei Chau Drive and Ap Lei Chau Bridge Road.

## EPIW of KTE (Layout plan at Annex 6)

- (i) construction of a pedestrian link system connecting Ho Man Tin Station to Ho Man Tin Estate, Oi Man Estate and the Hung Hom area south of Chatham Road North, which includes covered footbridges, covered walkways and subways;
- (ii) construction of a footbridge integrating with the existing footbridge across Chatham Road North and connecting Ho Man Tin Station to Wuhu Street; and
- (iii) construction of a public transport facility at Chung Hau Street near Ho Man Tin Station.

## Latest Progress of the Works

11. MTRCL has submitted progress reports on WIL, SIL(E) and KTE (as at 30 September 2015) at **Annexes 7** to **9** respectively. The analysis and supplement made by HyD on these progress reports are provided below.

12. WIL, together with HKU Station and Kennedy Town Station, was commissioned on 28 December 2014 whilst Sai Ying Pun Station (except Ki Ling Lane Entrance) was subsequently completed and opened on 29 March 2015. All the three stations of WIL are now opened to the public. All EPIW related to WIL have also been completed.

13. The excavation works for the passenger adit between Ki Ling Lane entrance and First Street/Second Street entrance were completed. The construction of the tunnel lining would commence in October 2015. Meanwhile, the architectural and building works, electrical and mechanical works as well as escalator installation are still underway. In view of the current progress, MTRCL anticipated that the target completion date of Ki Ling Lane Entrance would be the first quarter of 2016. We will closely monitor the progress of works.

## SIL(E)

14. The expansion works at Admiralty Station for SIL(E) involve the addition of three underground levels below Harcourt Garden east of the existing station and the construction of an approximately 200m long overrun tunnel for SCL. The additional three underground levels include one level for interchange and two levels for train platforms. The platforms at the upper level are reserved for the use of SCL while the platforms for SIL(E) are at the lowest level. Upon expansion, Admiralty Station will become an integrated station serving passengers of SCL and SIL(E). Hence, except that the construction cost (\$300 million) of the overrun tunnel of SCL would be fully absorbed by the SCL project, the construction cost of the expansion work of Admiralty Station will be apportioned between SCL and SIL(E) projects at a ratio of 70:30 in accordance with the estimated patronage at peak hours at the station. According to the cost estimate in 2011, SCL project has to share about \$2,700 million (in money-of-the-day prices) for the costs of building works, building services works, electrical and mechanical works for the portion of SCL at Admiralty Station. Besides, the SCL project has to share about 350 million for the costs of the portion of ventilation facilitates at Admiralty Station for SCL. Hence, the SCL will have to share an overall cost of about \$3,350 million (in money-of-the-day prices) at Admiralty MTRCL advised HyD on 12 August that the recently completed cost Station.

estimate review of the expansion works of Admiralty Station of SIL(E) indicated an upward adjustment of the relevant cost of expansion works of Admiralty Station to be shared by SCL. According to the apportionment ratio of 70:30 above, the cost shared by SCL has to be adjusted upward from about \$3,350 million to about \$4,650 million with an increase of about \$1,300 million. HyD has requested MTRCL to submit further information and will critically examine the latest cost estimate with the assistance of its monitoring and verification consultant.

15. In order to connect the expansion part with the platforms of SIL(E) and SCL, the underpinning works for the existing tunnel of the Island Line have to be The critical part of the excavation for the carried out for excavation underneath. underpinning works was completed in early June 2015. As at 30 September 2015, about 93% of the excavation for the underpinning works has been The progress of excavation has not resulted in the recovery of delay, completed. which has in turn affected the progress of the subsequent structural works for the station expansion. MTRCL reported to LegCo RSC in November 2014 that its target was to commission SIL(E) at the end of 2016. MTRCL submitted the revised baseline programme to HyD in early September 2015 with the target commissioning date at the end of 2016. As at 30 September 2015, the overall progress of the expansion of the Admiralty Station was generally on schedule.

16. The overall progress of the Nam Fung Tunnel connecting Admiralty Station and Ocean Park Station as well as other railway facilities at Wong Chuk Hang and Ap Lei Chau generally meets the revised works schedule. HyD will closely monitor the work progress of the relevant works and review the information of the work progress provided by MTRCL on a regular basis.

17. For the EPIW entrusted by the Government to MTRCL mentioned in paragraph 10 above, the new slip road connecting Ap Lei Chau Drive from Ap Lei Chau Bridge Road was opened in July 2015. As the alignment of existing underground utilities is more complicated than expected, the construction of a public transport interchange underneath Wong Chuk Hang Station, widening of Heung Yip Road and construction of a pedestrian link to Aberdeen Channel Promenade are expected to be completed in the fourth quarter of 2015, which is about 5 months later than the completion date stated in the entrustment agreement. In order to achieve this target, MTRCL has to improve the efficiency of every aspect of the remaining works. Nevertheless, the progress of the above works will not affect the commissioning of SIL(E).

18. According to the latest cost estimate advised by MTRCL to HyD on 12 August 2015, EPIW of SIL(E) may exceed the approved project estimate<sup>2</sup> by about \$190 million. HyD has requested MTRCL to provide further information for scrutiny.

19. On the whole, **MTRCL maintains the target of commissioning SIL(E) at the end of 2016.** Although the progress of works at various sections of Admiralty Station has matched the targets in the revised baseline programme, the programme shows that the timetable for remaining works of the station has been highly compressed. **Hence, MTRCL has to improve the efficiency of every aspect of the expansion works at Admiralty Station and expedite the remaining works to achieve the revised target commissioning at the end of 2016.** HyD has asked MTRCL to provide further information to substantiate the feasibility of the arrangement of the remaining construction works.

#### <u>KTE</u>

20. Ho Man Tin Station will be an integrated station connecting both SCL and KTE and providing convenient interchange for passengers travelling on these two railway lines. The construction cost of Ho Man Tin Station is therefore apportioned between SCL and KTE projects at a ratio of about 74:26 in accordance with the estimated patronage at peak hours at the station. According to the cost estimate in 2011, the SCL project has to share about \$2,900 million (in money-of-the-day prices) for the costs of building works, building services works, E&M works for the portion of SCL at Ho Man Tin Station. MTRCL advised HyD on 12 August that the recently completed cost estimate review of KTE indicated that the relevant construction cost of Ho Man Tin Station shared by SCL would still remain within the budget. However, the EPIW of KTE entrusted by the Government to MTRCL, may exceed the approved project estimate<sup>3</sup> by about HyD has requested the MTRCL to submit further information as \$75 million. soon as possible for scrutiny.

<sup>&</sup>lt;sup>2</sup> In 2011, the estimated capital cost of EPIW of SIL(E) was \$927 million (in money-of-the-day prices).

<sup>&</sup>lt;sup>3</sup> In 2011, the estimated capital cost of EPIW of KTE was \$826.9 million (in money-of-the-day prices).

21. MTRCL is currently engaged in the E&M works and building services installation of Ho Man Tin Station in full swing according to the planned programme. The track laying works between Yau Ma Tei and Whampoa were substantially completed in September. Building services installation inside the tunnels is also in progress.

22. The excavation for the platform tunnel between the east and west concourses of Whampoa Station ("WHA") was completed in August this year and the tunnel structural works were also substantially completed at the end of September. Other remaining works such as track laying and services installation have started. MTRCL is now carrying out measures of adjusting the works sequence and increasing manpower to improve the construction implementation and progress of work. As for the structural works of WHA, it is anticipated that they will be completed by the fourth quarter of 2015.

23. The delay in the construction of Ho Man Tin Station earlier has affected the progress of part of the EPIW connecting to Ho Man Tin Station, including the two pedestrian subways for crossing Fat Kwong Street and Chung Hau Street, part of the footbridge connecting to Ho Man Tin Station, as well as the public transport facility at Chung Hau Street in the vicinity of Ho Man Tin Station. Besides, the excavation works for the above two pedestrian subways have encountered complicated geological conditions and are experiencing slight delays. The above EPIW are expected to be available for public use at the same time as the commissioning of KTE. Regarding the remaining EPIW, including the footbridges and covered walkways crossing Chatham Road North, Chung Yee Street, Sheung Lok Street and Fat Kwong Street, MTRCL completed most of the works in the third quarter of 2015. It is anticipated that the outstanding works could be completed in the fourth quarter of this year.

24. HyD monitors the progress of various items through regular progress meetings with MTRCL and site visits. It also discusses with MRTCL and co-ordinates with related government departments to help MTRCL resolve problems encountered in the course of works. Through progress meetings and letters to MTRCL, HyD has repeatedly expressed its concern about the persistent delay of the works at Whampoa Station, and requested MTRCL to review the target commissioning programme of KTE and provide progress briefings and detailed works programmes on the major construction activities in order to clarify and supplement on how to carry out the remaining works in the construction

programme. In response to the concerns of HyD, MTRCL has provided HyD with regular progress briefs on major works processes, and has improved the works sequence, increased manpower and machinery, and adjusted the E&M and fitting-out works to improve the construction progress.

25. MTRCL reported to the LegCo RSC in early August 2015 that the target to commission KTE would be in the third or fourth quarter of 2016. MTRCL submitted a revised programme to HyD in October 2015. Based on the information available to HyD, given the substantial completion of the structural works of the platform tunnel in the third quarter of 2015 and on condition that the structural works of the station can be completed in the fourth quarter of 2015, the newly revised target commissioning date of MTRCL (i.e. the third or fourth quarter of 2016) would be achievable. HyD will continue to closely monitor the progress of the works.

#### Conclusion

26. We will continue to closely monitor the progress of the remaining works and system testing of the Ki Ling Lane Entrance of WIL for its commissioning in the first quarter of 2016. Regarding SIL(E), although the overall progress of works at different sections has generally matched the targets set in the revised baseline programme for the target commission at the end of 2016, the revised works programme shows that the timetable for remaining works of the expanded Admiralty Station has been highly compressed. HyD has asked MTRCL to provide further information to substantiate the feasibility of the revised basline programme. For KTE, MTRCL has revised the target commissioning date to the We are of the view that if MTRCL can finish the third or fourth quarter of 2016. structural works of WHA in the fourth quarter of 2015, it may be able to achieve the revised target commissioning date. Nonetheless, the above railways are ownership projects and MTRCL will bear the additional expenditure arising from the delay of these railway works.

27. The above railway works are major underground infrastructure projects of a considerable scale. There are various difficulties and challenges encountered in the course of construction. It is unavoidable that there are deviations from the original plan for individual works contracts. MTRCL has adjusted its works sequence having regard to the actual situation of work sites. Additional manpower and machinery have also been deployed to particular construction activities in

order to overcome the difficulties. The Government will closely monitor the progress of works and the state of construction. It will also assist MTRCL to resolve problems encountered in the construction works as early as possible and conduct timely reviews of the commissioning programme taking into account the latest situation of the project.

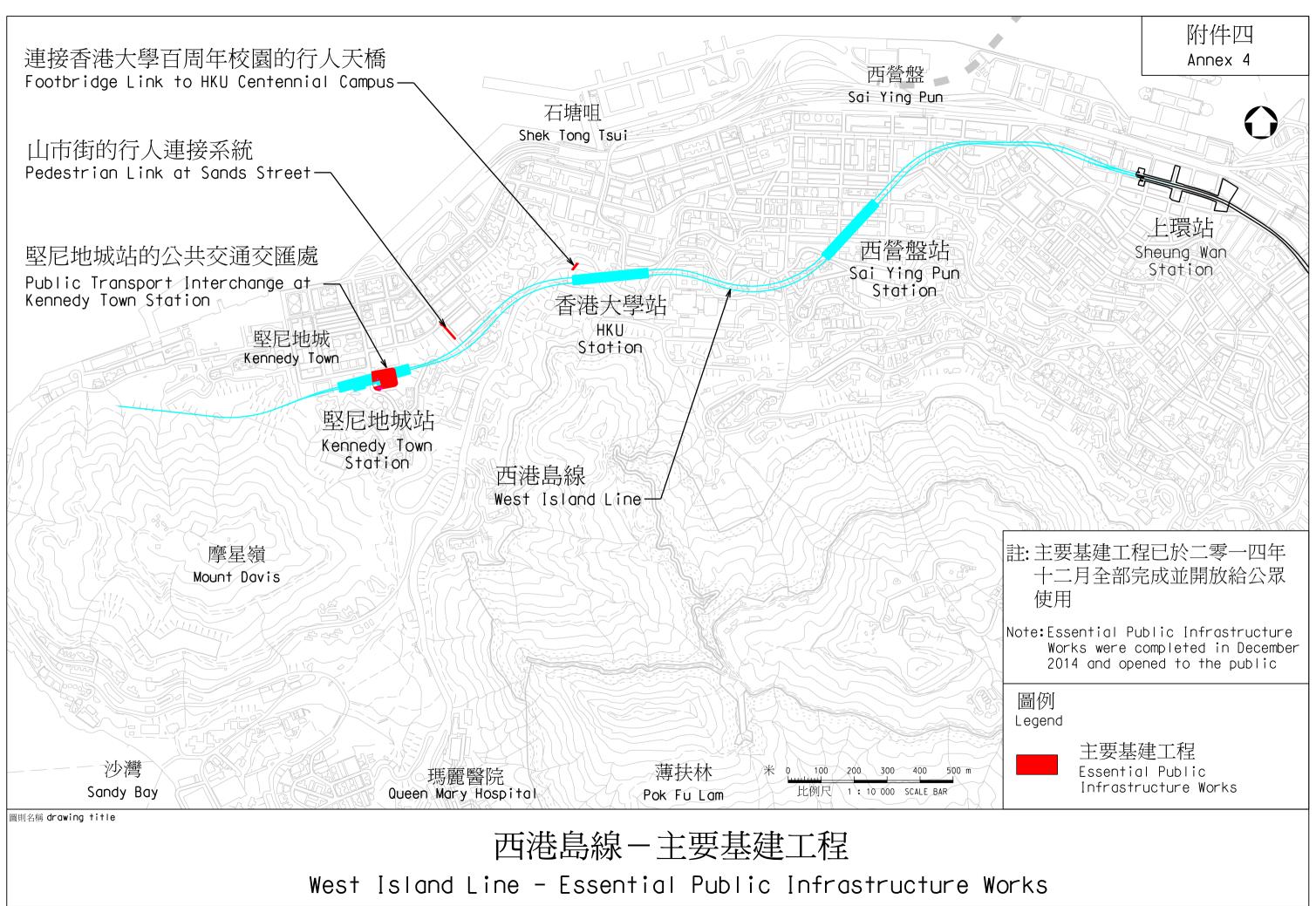
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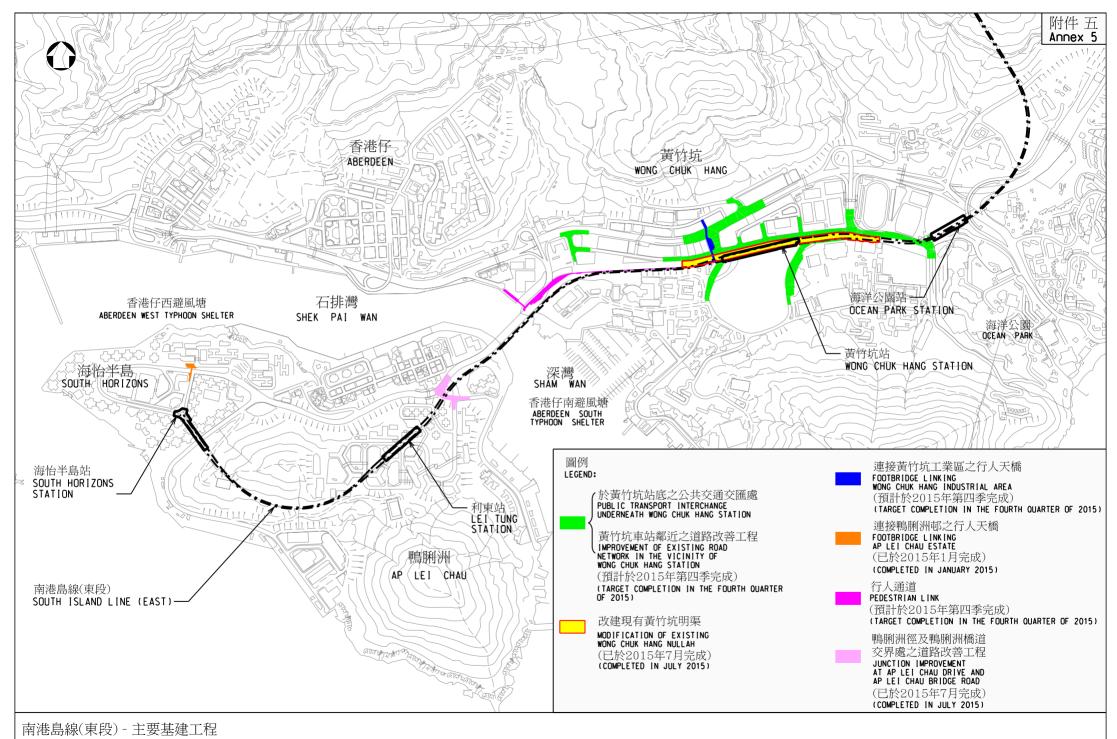




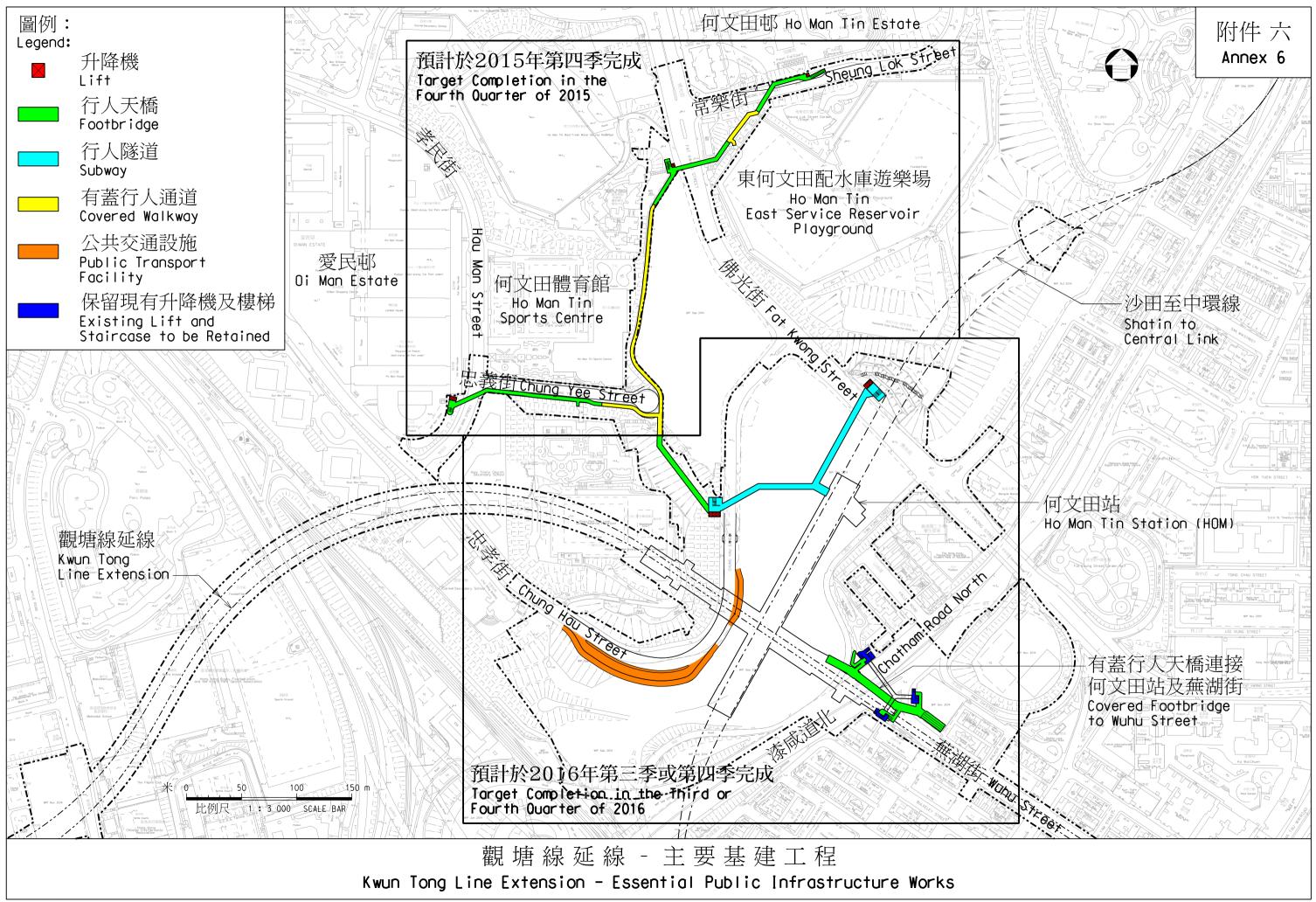


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SOUTH ISLAND LINE (EAST) - ESSENTIAL PUBLIC INFRASTRUCTURE WORKS



#### Annex 7

#### Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

#### Progress Update of the West Island Line (As at 30 September 2015)

This paper briefs Members on the latest progress of outstanding station works of the West Island Line (WIL).

#### Background

2. The MTR Island Line has been extended from Sheung Wan Station (SHW) to Kennedy Town Station (KET) with two intermediate stations, Sai Ying Pun Station (SYP) and HKU Station (HKU) since December 2014. Overall, train service has been operating smoothly.

3. SYP has put into operation but the construction of its station entrance at Ki Ling Lane is still progressing.

#### **Latest Construction Progress**

4. Construction works of the Ki Ling Lane entrance of SYP continue. The excavation of the remaining 20-metre passenger adit using ground freezing techniques was completed in September this year with the subsequent tunnel lining construction due to commence in October. Architectural builder works and finishes, building services, and electrical and mechanical as well as escalator installation in the entrance structure are well under way.

5. Given the current construction progress, the Ki Ling Lane entrance is expected to open for public use in the first quarter of 2016 as reported previously. In the meantime, proper protection measures are in place to ensure that the construction activity would not affect the station operations and passengers.

# Conclusion

6. Members are invited to note the above information.

MTR Corporation Limited November 2015

Annex 8

# Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

## Progress Update of the South Island Line (East) (As at 30 September 2015)

#### Purpose

This paper aims to provide an update on the works progress of the South Island Line (East) (SIL(E)) project as at 30 September 2015.

#### Background

2. SIL(E) is a 7-kilometre, medium-capacity railway that connects the Southern District with the existing railway network in Hong Kong through tunnels and viaducts with stations at Ocean Park, Wong Chuk Hang, Lei Tung and South Horizons. A train maintenance depot is located in Wong Chuk Hang.

3. To enhance convenience for the residents of Southern District, the project also includes the construction of a number of Essential Public Infrastructure Works (EPIW) in addition to the railway. These include the construction of a public transport interchange under Wong Chuk Hang Station; improvement of the existing road network in the vicinity of Ocean Park and Wong Chuk Hang stations; the construction of a covered footbridge connecting Wong Chuk Hang Station with the adjacent industrial area; the construction of a covered footbridge crossing Ap Lei Chau Bridge Road to link the western part of Ap Lei Chau Estate to Yi Nam Road near the Precious Blood Primary School; and the construction of a pedestrian link to the Aberdeen Channel Promenade, etc.

4. Construction of SIL(E) commenced in 2011. Upon commissioning, it will provide convenient and fast railway service for the approximately 350,000 residential and working population in Southern District. The journey time from Admiralty to Ocean Park will be reduced from the current 25 to 45 minutes to just 4 minutes. The train ride from Admiralty to South Horizons will take

approximately 11 minutes. The frequency of train service will be about 3 minutes during peak periods.

#### **Project Progress**

5. The SIL(E) project is expected to be completed to open for passenger service at the end of 2016. To better reflect the actual works progress of the project, the progress in this report is measured against the above updated project completion target, i.e. end 2016. As at 30 September 2015, the overall works for SIL(E) are 90.3% completed compared to the planned project completion rate of 90.5%. Tunnel construction works for both Nam Fung Tunnel and Ap Lei Chau Tunnel, as well as structural works for the viaduct section have been completed.

6. With the exception of the entrance at Lei Tung Estate of Lei Tung Station, the construction of the four new stations and their entrances in Southern District including Ocean Park Station, Wong Chuk Hang Station, Lei Tung Station and South Horizons Station is generally in line with the original programme. For the Lei Tung Estate entrance of Lei Tung Station, the completion of the entrance structure and fitting-out works as well as the installation of passenger lifts will continue until the first half of 2016.

## Track and Train-related Works

7. The extension works of Admiralty Station as part of the SIL(E) project include the construction of platforms for the SIL(E) and SCL at Harcourt Garden as well as two overrun tunnels for SCL, each with an approximate length of 200 metres. Excavation for the platforms and tunnels of SIL(E) and the platform tunnels of SCL was completed in May 2015. Meanwhile, the cut-and-cover excavation for Admiralty Station extension is substantially completed and construction of the station structure, fitting-out and E&M works are in progress (details in paragraphs 11 to 13). The structural works, fitting-out and E&M works for the Hong Kong Park Ventilation Building are in progress.

8. At Nam Fung Tunnel, the lining works have been completed while the construction of the transition structure connecting to the viaduct section is substantially completed.



Nam Fung Tunnel permanent lining works have been completed

9. All track-laying works, installation of overhead lines and trackside auxiliary services have been completed from Ocean Park Station to South Horizons Station and those in the section between Ocean Park Station and Admiralty Station are in good progress. The installation of noise barriers for the viaduct section is substantially completed.

10. Testing for the 10 new SIL(E) trains started on the running track between Wong Chuk Hang and South Horizons Stations in April 2015.

## Station Structural Works

11. Admiralty Station is undergoing expansion to become an interchange station for four railway lines including the Island Line, Tsuen Wan Line, SIL(E) and SCL. There are three levels at the existing Admiralty Station including one concourse level and two platform levels serving passengers on the Tsuen Wan Line and Island Line. The extension works of Admiralty Station are being carried out under Harcourt Garden, east of Admiralty Station, with three additional levels being constructed below the existing station. The cut-and-cover excavation is substantially completed and construction of the station structures is now progressing.

12. The most complex and challenging part of the Admiralty Station extension works is the underpinning excavation works beneath the tunnel structure of the existing Island Line. The construction team has overcome many challenges and improved the production rate, through changing the works design and extending the working hours to 24 hours a day. Since end 2014, the underpinning excavation works have achieved their monthly target production rate and as at 30 September 2015, 93% of the works is completed, with the works in the critical area substantially completed. In view of the current progress, the target opening of SIL(E) is maintained at end 2016.



Underpinning works for Island Line tunnel at Admiralty Station

13. The excavation and blasting for the cavern and SIL(E) platform tunnels that make up the southern part of the Admiralty Station extension were completed in April 2014 and structural works are in progress.

14. Structural works for Ocean Park Station, Wong Chuk Hang Station and Wong Chuk Hang Depot are completed with fitting-out and E&M works substantially completed. The majority of the track areas inside Wong Chuk Hang Depot have been energised for the testing of trains.

Structural works for Lei Tung Station (except Entrance B) are completed 15. with fitting-out and E&M works in progress. For Entrance B at Lei Tung Estate, construction of the shaft structure is in progress and the structural works for the pedestrian adit are substantially completed. Unforeseen adverse ground conditions encountered at the shaft formation level has caused delay to the commencement of structural works and progress is also being hampered by the shortage of labour resources. As a result, the construction of the entrance shaft structure at Lei Tung Estate is taking longer than anticipated when compared with that of the other station structures. In view of the extended time for this part of work, the construction team has implemented a series of measures to expedite the progress which includes application for a Construction Noise Permit to allow longer working hours at night, and adopting systematic climbing formwork for shaft structural works which would enhance works efficiency. The completion of the entrance structure and fitting-out works as well as the installation of passenger lifts is expected to continue into the first half of 2016, but the station will still be ready for the overall opening schedule of SIL(E) which is targeted for the end of 2016.



Fitting-out and E&M works at Lei Tung Station



Structural works of Lei Tung Station entrance at Lei Tung Estate

16. At South Horizons Station, excavation and structural works for the station box under the temporary traffic deck have been completed with fitting-out and E&M works in progress. Structural works for the station entrances are progressing steadily. Structural works for the End Plant Building at Yuk Kwai Shan and the ventilation building at Lee Wing Street have been completed with fitting out works and E&M works underway.



Fitting-out and E&M works at South Horizons Station

# Conclusion

17. Members are invited to note the above information.

MTR Corporation Limited November 2015

#### Legislative Council Panel on Transport **Subcommittee on Matters Relating to Railways**

# **Progress update of the Kwun Tong Line Extension**

(As at 30 September 2015)

## Background

The Kwun Tong Line Extension (KTE) project is a 2.6-kilometre underground extension of the existing Kwun Tong Line from Yau Ma Tei to Whampoa, with an intermediate station at Ho Man Tin. Ho Man Tin Station being constructed under KTE will be an interchange station with the future Shatin to Central Link (SCL). The construction of the KTE project commenced in 2011.

2. To facilitate convenient access to railway service for local commuters, Essential Public Infrastructure Works (EPIW) are being constructed alongside the railway works. These include a series of pedestrian walkways connecting Ho Man Tin Station to Oi Man Estate and Ho Man Tin Estate, a covered footbridge across Chatham Road North, and public transport facilities at Chung Hau Street.

3. As reported to the Subcommittee in August 2015, it is anticipated that the train service of KTE will commence in the 3<sup>rd</sup> or 4<sup>th</sup> quarter of 2016.

# **Project Progress**

As at 30 September 2015, the overall works for KTE are 86.6% 4. completed, which is in line with the targeted opening date of 3<sup>rd</sup> or 4<sup>th</sup> quarter 2016. Approximately 93.8% of civil works and 62.8% of the electrical and mechanical (E&M) works have been completed.

5. Following the partial breakthrough of the platform tunnel between the East and West Concourses of Whampoa Station in July 2015, the excavation of the platform tunnel was completed in August. The construction team is working hard on completing the tunnel lining work and internal structures despite the constraints in working space and delivery logistics.

#### **Railway Tunnelling and Track Works**

6. The structural works for the railway tunnels between Yau Ma Tei and Whampoa are substantially complete. Track-laying works are progressing beneath Tak Man Street towards Whampoa with 87% completed. It is expected that all track works will be completed in the  $4^{th}$  quarter this year.



Track-laying works underneath Tak Man Street

7. While the overhead lines and trackside equipment are being installed in the tunnels, installation of the main control system, communications and signalling systems has also commenced.

## Ho Man Tin Station and Essential Public Infrastructure Works (EPIW)

8. Ho Man Tin Station will serve as the future interchange station between KTE and SCL. The 8-storey station has a cruciform-shaped design with dedicated interchanging escalator connections, interchange concourse and entrance connections at various levels, providing a total floor area of 56,600 square metres for both SCL and KTE.

9. Following the topping out of Ho Man Tin Station in June 2015, E&M equipment assembly and building services installation works are in full swing. Power supply to the station was energized in September 2015 while installation of lifts & escalators, chillers, platform screen doors and architectural fit-out works continues.



E&M Installation works at Ho Man Tin Station

10. To facilitate the delivery of E&M equipment to Ho Man Tin Station work site, works trains are in operation from Tsuen Wan Depot to the overrun tunnel of Yau Ma Tei Station during non-traffic hours of Tsuen Wan Line. External drainage and utilities connection works are progressing as planned in the vicinity of the station.

11. About 87% of the EPIW for Ho Man Tin Station has been completed. Most of the works for the pedestrian facilities and footbridge connecting Oi Man Estate and Ho Man Tin Estate were completed in September 2015. It is anticipated that the outstanding works will be completed in the 4<sup>th</sup> quarter of 2015 for opening of the facilities for public use subject to satisfactory inspection by relevant government departments. For the public transport facilities at Chung Hau Street, footbridge connection between Chatham Road North and Ho Man Tin Station as well as the pedestrian subways underneath Fat Kwong Street and Chung Hau Street, will be opened for public use in conjunction with the opening of Ho Man Tin Station.



Pedestrian facilities connecting Oi Man Estate and Ho Man Tin Estate were completed

#### Whampoa Station and tunnelling works

12. Whampoa Station, the future terminus of Kwun Tong Line, comprises East and West Concourses with a single platform in between. The excavation of the platform tunnel was completed in August 2015 and structural works are being carried out. Structural works at East and West Concourses were at 84% and 90% completed respectively. They are anticipated to be completed in the 4<sup>th</sup> quarter of 2015. The installation of E&M and building services has commenced at both Concourses.

13. The integrated entrances at Shung King Street and Tak On Street connecting to the shopping malls of Whampoa Garden are being constructed. Tunnel structural works for the overrun tunnel at Wan Hoi Street were substantially completed.



Structural works at East Concourse of Whampoa Station

14. At Shung King Street, drainage and utilities reinstatement works are being carried out in stages to facilitate the construction of the integrated structure for lifts, ventilation shaft and emergency evacuation access. Two traffic lanes on a section of Shung King Street were closed in late August for approximately three months. During the period, traffic within the closed section of Shung King Street will be diverted to Tak Ting Street. However, the pedestrian walkway will remain open and emergency vehicular access will be maintained for emergency use. The Corporation has taken various mitigation and adjustment measures with a view to minimising the impact to the local community and addressing the local concerns in a timely manner.

15. To enhance works production at Whampoa Station, additional manpower and equipment have been deployed at various work fronts at Whampoa Station. The construction team is pushing forward with the remaining works in order to meet the target to commence train service in the  $3^{rd}$  or  $4^{th}$  quarter of 2016.

# Conclusion

16. Members are invited to note the above information.

MTR Corporation Limited November 2015