

**Translation**

**For Information**

**May 2013**

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

**Progress and Financial Situation of  
the Construction of the Hong Kong Section of  
Guangzhou-Shenzhen-Hong Kong Express Rail Link**

**(6<sup>th</sup> Half-yearly Report for the Period ending 31 December 2012)**

**INTRODUCTION**

This is the sixth half-yearly report on the construction of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) project.

**BACKGROUND**

2. At the meeting of the Subcommittee on Matters Relating to Railways (the Railways Subcommittee) under the Legislative Council Panel on Transport in April 2010, Members agreed that reports on progress update and financial situation of the Hong Kong section of the XRL should be submitted at six-month intervals. In October 2012, the Administration submitted the fifth half-yearly report on the progress of construction and financial situation of the Hong Kong section of the XRL project for the period between 1 January and 30 June 2012. This paper is the sixth half-yearly report on the progress of construction and financial situation of the XRL project for the period between 1 July and 31 December 2012.

## OVERALL PROGRESS OF THE XRL PROJECT

### (I) Major Works

3. As at 31 December 2012, 39 major construction contracts<sup>1</sup> together with other minor contracts were awarded with a total awarded value of \$44.81 billion. They included contracts for tunnelling works, construction works of the West Kowloon Terminus (WKT) and electrical and mechanical (E&M) works, which amounted to about \$22.4 billion, \$14.47 billion and \$7.94 billion respectively.

4. The lists of major contracts awarded in this reporting period and the award schedule for the next reporting period are shown at **Annex 1**.

5. The overall progress is summarised below –

- (a) Railway tunnels – Six tunnel boring machines (TBMs) are in operation for tunnel works. For the Mainland section, two TBMs at the Huanggang launching shafts to the north of the Shenzhen River commenced the southward tunnelling works between Huanggang and Mai Po in June and November 2012 respectively. Regarding the New Territories section, the first TBM commencing operation from the Mai Po site successfully passed beneath Wai Tsai Tsuen in December 2012. Another TBM that commenced operation from the Tsat Sing Kong site in October 2012 is now heading for Tai Kong Po.

As for the urban section, the TBM boring from the Nam Cheong site heading northward successfully broke through into the southbound drill-and-blast tunnel of the Kwai Chung section in December 2012. The TBM heading southward also completed the boring works under the Tai Kok Tsui area between mid-September 2012 and November 2012. It is currently heading for Yau Ma Tei. Drill-and-blast tunnelling works are in full swing at the sites in Kwai Chung, Shek Yam, Shing Mun, Pat Heung, Tai Kong Po and Ngau Tam Mei. For the Kwai Chung section, southbound drill-and-blast tunnelling has been completed while those for the northbound tunnel are still underway. The northbound tunnel is expected to connect with Shek Yam tunnel

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<sup>1</sup> Major construction contract means individual contract with value above \$50 million.

section in the second quarter of 2013.

- (b) WKT – Excavation works for the main structure of the Terminus have been completed by about 45%. Underground structural works at the southern end of the Terminus have reached level B3 (a total of four levels from B1 to B4). For the main structure of the Terminus, the excavation works have reached the lowest level B4, i.e. the platform level of the Terminus.
- (c) E&M works – Major contracts including those for the rolling stock and signalling system have been awarded. Contractors are working on the detailed design of systems and procurement of supplies and equipment.

— 6. Details of the progress of works are set out at **Annex 2**. The Government will continue to monitor closely the progress of the XRL project through the established mechanism.

## **(II) Preparation and Co-ordination for Construction Works**

### **(a) Temporary traffic arrangements**

7. To facilitate the works of the XRL project, we have continued to implement temporary traffic management measures of different scales. They include moving northward the section of temporary road between Lin Cheung Road and D1A(N) Road with effect from 16 September 2012 to the first quarter of 2014, and upgrading the roundabout at the junction of Austin Road West and Lin Cheung Road to a signal-controlled junction with effect from 30 November 2012 to the end of 2014. We would continue to maintain close liaison with the local communities and relevant District Councillors on such arrangements. Our efforts would include consulting District Councillors on the specific details, arranging site visits to assess the results of temporary traffic management measures and listening to related views for improvement. Moreover, we have kept owners/occupiers of the relevant housing estates and buildings informed of the latest temporary traffic arrangements, and have also uploaded such information onto the XRL website so that residents, business operators and the public would be aware of the arrangements.

(b) Tunnel boring works and community liaison in Tai Kok Tsui (TKT)

8. Representatives of the Government and the MTR Corporation Limited (MTRCL) have kept close dialogue with TKT residents on the progress of the XRL project and residents' concerns over the project. Tunnelling works continued in TKT in the second half of 2012. During the period, the Government and the MTRCL maintained close contact with local stakeholders and business operators while the XRL Community Ambassador Team (CAT) and Project Team (PT) also made frequent visits to TKT to explain details of the works and listen to views of the local community. Prior to the commencement of the XRL tunnelling works, the MTRCL has established monitoring points in TKT and the buildings concerned to monitor the conditions of these buildings, the ground and public utilities.

9. Boring works for the first tunnel section within TKT were successfully completed between mid-September 2012 and November 2012. Prior to and since the operation of TBM in TKT, the MTRCL has issued XRL newsletters and notices to inform local residents of the latest works progress. Professional staff members have kept a close watch on the monitoring data collected during the tunnelling works and any potential impact, on the nearby buildings to ensure that the works have had no impact on the structural safety of these buildings. The XRL CAT and PT have also made frequent visits to TKT to meet with the residents and business operators, listen to their views and explain the operation and benefits of TBMs.

10. Relocated to the XRL site office beside the Nam Cheong Park on 6 June 2012, the XRL Information Centre has continued to serve the local community. It handled over 120 enquiries in the second half of 2012. Open to public visit, the Centre provides information on the latest progress of the tunnelling works, and displays models simulating the operation of various monitoring points.

11. The CAT has actively reached out to the local community and participated in community activities. For instance, it collaborated with local community centres to organise family workshops on 3-dimensional drawing and stop-motion animation during the summer vacation. The workshops were well received by the local community. Prior to the Mid-Autumn Festival, the CAT

and PT also visited elderly centres and business operators in TKT.

12. To protect the interests of both the owners and the XRL project, the MTRCL have continued to arrange for condition surveys upon owners' request. Condition surveys for the common areas of the 19 affected buildings in the district were completed and the relevant reports have been delivered to the respective owner corporations.

(c) Communication with residents of Yau Tam Mei Tsuen (YTMT)

13. To address YTMT residents' concerns over the works for the XRL project, the water level of wells within the area and the quality of site effluent, representatives of the MTRCL and the Contractor have been in close dialogues with the Rural Committee, District Councillors, YTMT representatives and residents. Residents' concerns have been addressed in a timely manner through meetings with residents, site inspections and Community Liaison Group (CLG) meetings. Related information and updates on the works have been disseminated via the XRL website, newsletters and notices. To maintain direct communication with the local community, representatives of the MTRCL and its contractor have attended site inspections, visits and residents' meetings upon YTMT residents' request to explain various situations related to the works and listen to the residents' views. Representatives of the MTRCL and the Contractor would continue to maintain close communication with YTMT residents and follow up each and every issue raised by them.

14. Through a case conference on 14 December 2012 and a site visit on 4 February 2013, representatives of the Government and the MTRCL reported the situations related to the works in YTMT and the MTRCL's follow-up work in response to the residents' concerns to Members of the Legislative Council. Relevant government departments will continue to closely monitor the works of the MTRCL and its contractor to ensure full compliance with related regulations pertaining to environmental protection and construction safety so as to minimise the impact of the construction works on neighbouring areas.

(d) Handling of enquiries and complaints

15. The Government and MTRCL have always attached great importance to communication with the public and local communities. Members of the

public can make use of various channels including mailing, fax, e-mail, dedicated MTR Projects Hotlines and CLGs to express their views or make enquiries concerning the XRL project. Enquires or complaints received concerning the XRL project were mainly about the tidiness and cleanliness of works sites, traffic management, environmental implications, suspected damages to buildings, etc. On receipt of an enquiry or complaint, the Government and MTRCL would promptly contact the enquirer or complainant to acknowledge receipt of the case, and would investigate the details and follow up.

(e) Public engagement and community involvement activities

16. The MTRCL has continued to arrange school talks and regular CLG meetings to maintain close communication with local residents. Prior to the commencement of the 2012/13 school year, the MTRCL extended written invitations to primary and secondary schools in various districts in Hong Kong on talks on the XRL project. The invitations were well-received. Moreover, the MTRCL has sent invitations to the schools located along the XRL alignment (such as Sham Mong Road, Hoi Wang Road and TKT district) to visit the XRL Visitors' Centre in the Austin Station, where exhibition panels and models on the WKT and its construction methods are set up to let students know more about the XRL project and railway construction.

17. In addition, volunteer teams comprising representatives of the Highways Department, MTRCL and the contractors visited elderly centres in TKT and Tsuen Wan during the Mid-Autumn Festival, bringing to the elders not only festive food but also love and care.

**(III) Employment Opportunities**

18. At the end of December 2012, about 7 500 construction workers and technical/professional staff members were employed to engage in the construction and E&M works for the tunnels and the WKT. It is estimated that the total project manpower figure will gradually increase to 11 000 during the peak construction period between 2013 and 2014.

## **UPDATED FINANCIAL SITUATION OF THE XRL PROJECT**

19. As at 31 December 2012, the cumulative expenditure for the awarded contracts was \$44.81 billion. All in all, the award of contracts is on schedule and within budget.

20. We will continue to monitor the progress of the project to ensure that it is within the approved budget and will be completed as scheduled with high quality. Details of the financial situation of the XRL project are shown at  
—— **Annex 3.**

**Transport and Housing Bureau**  
**May 2013**

**Major contracts awarded in this reporting period and  
award schedule for the next reporting period**

Table 1 – List of major contracts awarded in this reporting period

Contract number and title	Date of award	Awarded contract sum (\$ million)
<b>(A) Railway Tunnels</b>		
All contracts were awarded	--	--
<b>(B) West Kowloon Terminus (WKT)</b>		
All major contracts were awarded	--	--
<b>(C) Electrical and Mechanical (E&amp;M) Works</b>		
850 – Passenger Mobile Communications System	12 Dec 2012	105.33
<b>Total:</b>		<b>105.33</b>



Table 2 – Award schedule for major contracts between 1 January 2013 and 30 June 2013

**Contract number and title**

- (A) Railway Tunnels
  - All major contracts were awarded
  
- (B) WKT
  - All major contracts were awarded
  
- (C) E&M Works
  - All major contracts were awarded

Thus, there is no more major contract to be awarded since the beginning of 2013.

**Detailed half-yearly progress report of works ending 31 December 2012**

**(I) Progress of works**

**Tunnels –** For the southbound tunnelling works, The tunnel boring  
**New** machine (TBM) commenced from the Mai Po launching shaft  
**Territories** and has advanced about 1 200 metres (m). It successfully  
**Section** passed under Wai Tsai Tsuen heading for the Ngau Tam Mei shaft.

Drilling and blasting works at the rock stratum at the Ngau Tam Mei shaft were completed. Tunnelling works heading south for Tai Kong Po commenced.

Drill-and-blast tunnelling works at the Tai Kong Po site continued northward to a distance of about 450m, reaching Kai Kung Leng.

For the northbound tunnelling works between Tai Kong Po and Tse Uk Tsuen, the TBM commenced at the Tsat Sing Kong site in October 2012. Another TBM for constructing the southbound tunnel was being assembled. It is expected for commencement in the first quarter of 2013.

Construction of all diaphragm walls at the Shek Kong Emergency Rescue Siding works site was completed. Topping-out ceremony for the office building was held in November 2012 and structural works for other ancillary facilities were underway.

Drill-and-blast tunnelling works from the Pat Heung site

continued southward under Tai Mo Shan. Given that tunnelling works at the Shek Yam site continued northward, about 40% of the whole tunnel section between Tse Uk Tsuen and Shek Yam has been completed.

For the Shing Mun ventilation building and shaft located at the junction of Cheung Shan Estate Road West and Cheung Shan Estate Road East, acoustic shields were installed at the works sites to reduce the noise impact to the surrounding environment. Excavation works for the shaft reached a depth of 30m, with downward blasting carried out. Meanwhile, major structural works for the ventilation building were underway.

Drill-and-blast tunnelling works for the 2.7 kilometre-long Kwai Chung section of the railway tunnels was in good progress.

Drill -and-blast tunnelling works for the southbound tunnel of the Kwai Chung section were completed, while those for the northbound tunnel are expected to break through to the Shek Yam tunnel section in the second quarter of 2013.

**Tunnels –  
Urban Section**

For the urban section of tunnels, two TBMs commenced boring works for the northbound and southbound tunnel sections between Mei Lai Road and Hoi Ting Road. The first northbound tunnel was broken through to the Kwai Chung tunnel section in December 2012. As regards the southbound tunnel, the TBM successfully passed under Tai Kok Tsui heading for Yau Ma Tei.

Tunnelling works to the south of Hoi Ting Road were taken forward as scheduled, with tunnel structural works commenced in late December 2012.

The main structural works of the footbridge connecting Sham Mong Road and Hoi Lai Shopping Centre in Sham Shui Po was completed. Finishing works and installation of pedestrian lifts were underway. It is expected that the whole reprovisioning would be completed in mid-2013.

**West Kowloon Terminus (WKT)** As regards the main structure of the WKT, the concrete structure of the underground station to the south of Austin Road was being constructed by top-down approach. Underground structural works at the southern end of the WKT reached level B3 (a total of four levels from B1 to B4). For the northern part of the WKT, excavation works reached the lowest level B4 and construction of the main structure by bottom-up approach commenced.

**Electrical and Mechanical (E&M) Works** In this reporting period, all major works contracts, including those related to rolling stocks and signalling systems, have been awarded.

Contractors continued to carry out the detailed design on the systems. Procurement of major materials and machinery, including rails, ventilation tunnels and overhead electricity supply equipment, was confirmed by contractors and pre-production preparation work was underway.

## **(II) Preparatory work and interface issues**

**Major** The Temporary Traffic Management Scheme (TTMS) in

**Temporary  
Traffic  
Measures**

West Kowloon has remained in effect.

Temporary diversion of the traffic on a section of Jordan Road between Kowloon Station and Austin Station to the north of the road section was effected in September 2012. The arrangement would continue to be effective until 2014 when the reprovisioning of Jordan Road is completed.

Also, some minor TTMSs have remained in effect at various locations along Sham Mong Road and Hoi Wang Road to make room for ground improvement works, diversion of existing utilities and reinstatement works.

We would continue our consultation with the relevant District Councils and local communities for the various stages of TTMS.

### Half-yearly expenditure report ending 31 December 2012

Table 1 – Situation of expenditure

	<b>Awarded contract sum for the contracts (\$ million)</b>	<b>Cumulative expenditure (\$ million)</b>	<b>Estimated amount* of unresolved claim (\$ million)</b>
Railway Tunnels	22,400	14,560	1,737
West Kowloon Terminus (WKT)	14,465	6,700	1,595
Electrical and Mechanical (E&M) Works	7,940	1,073	0
<b>Total</b>	<b>44,805</b>	<b>22,333</b>	<b>3,332</b>

\* Amount stated in the contractor's detailed claim report.

Table 2 – Situation of substantiated claims

	<b>Claims resolved</b>			<b>Claims unresolved</b>		
	Number	Amount claimed originally* (\$ million)	Amount awarded (\$ million)	Number	Amount claimed* (\$ million)	Interim award (\$ million)
Railway Tunnels	47	1,737	862	99	1,952	215
WKT	46	247	187	120	1,691	96
E&M Works	4	0	0	2	0	0
<b>Total</b>	<b>97</b>	<b>1,984</b>	<b>1,049</b>	<b>221</b>	<b>3,643</b>	<b>311</b>

\* Amount stated in the contractor's detailed claim report.

The Government and the MTR Corporation Limited (MTRCL) have conducted risk assessment at the planning and budgeting stages of the project to minimise claims arising from the public works. Nevertheless, there are often unforeseeable situations in the course of works. For instance, the foundation or excavation works may come across larger amount of or more complicated obstructions than expected. As this will add difficulties to the works, the contractors may have to use more machines or switch to other machines that are more suitable and employ more staff to cope with these situations. The contractors will submit claims in accordance with the contract terms to pay for the additional expenditures. The MTRCL will examine claims and assess the amount concerned based on the relevant contract terms, justifications, documents, records, etc.

2. As at 31 December 2012, the MTRCL received 318 substantiated claims and the amount claimed in total was about \$5,627 million, representing 12.6% of the awarded contract sum for the contracts. The MTRCL is discussing the details of the claims with the contractors concerned, and will thoroughly assess the amount claimed. The MTRCL will process each claim in a prudent manner, and the contractors will have to provide sufficient justifications and information. As at 31 December 2012, 97 cases have been resolved and about \$1,049 million has been awarded, representing about 2.34% of the awarded contract sum for the contracts. Subject to the needs of individual works and progress of the relevant assessment and discussion, interim award amounting to about \$311 million has been made for some cases. The MTRCL will continue to handle the cases cautiously. We estimate that the amount claimed can be fully covered by the contingencies of the project and will not result in cost overrun.