

Translation

**For Information
October 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**

(7th Half-yearly Report for the Period ending 30 June 2013)

INTRODUCTION

This is the seventh 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 May 2013, the Administration submitted the sixth half-yearly progress report for the period between 1 July and 31 December 2012. This paper is the seventh half-yearly progress report of the XRL project for the period between 1 January and 30 June 2013.

OVERALL PROGRESS OF THE XRL PROJECT

(I) Major Works

3. For the XRL project, 39 major construction contracts¹ 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 overall progress is summarised below –

- (a) Railway tunnels – Seven tunnel boring machines (TBMs) were in operation, including two from the Huanggang launching shafts to the north of the Shenzhen River heading southward for Mai Po continuing with the excavation works of the cross-boundary tunnel section. The last TBM for the whole project started boring works of the northbound tunnel from the Mai Po site in early July 2013 and was heading for Ngau Tam Mei. Another TBM commencing operation from the Mai Po site for the southbound tunnel was expected to reach Ngau Tam Mei by the end of July 2013. Moreover, the TBM commencing operation from the Tsat Sing Kong site continued to head northward for Tai Kong Po. The TBM at the Shek Kong site commenced operation in March 2013 and was heading southward for Tse Uk Tsuen.

As for the urban section, after completion of the excavation for the southbound tunnel between Nam Cheong and Mei Lai Road in late 2012, the TBM was re-assembled in March 2013 and commenced the boring works northward from Nam Cheong for the northbound tunnel of the same section. Another TBM continued to head for Yau Ma Tei after excavating through the Tai Kok Tsui area.

Drill-and-blast tunnelling works were in full swing at the works fronts in Kwai Chung, Shek Yam, Shing Mun, Pat Heung, Tai Kong Po and Ngau Tam Mei. Drill-and-blast tunnelling for the Kwai Chung to Shek Yam section was completed in March 2013. 55% of the tunnelling works, including drill-and-blast and TBM excavation works,

¹ Major construction contract means individual contract with value above \$50 million.

have been completed.

- (b) Structural works for the seven ventilation buildings located at Mai Po, Ngau Tam Mei, Pat Heung, Shing Mun, Kwai Chung, Nam Cheong and Mong Kok West were underway. Construction of the Kwai Chung and Pat Heung ventilation buildings were almost completed and the two buildings were expected to be topped out in the second half of 2013.
- (c) WKT – Over 60% of the excavation works for the Terminus structure have been completed. Structural works at the southern end of the Terminus reached the lowest level B4 (a total of four levels from B1 to B4), and the concrete structure of the first two levels (B1 to B2) was also completed. Concrete structural works for the platform level (B4) and B3 level of the Terminus continued in the bottom-up approach.
- (d) E&M works – Installation of E&M equipment was commenced at the WKT and the Shek Kong Emergency Rescue Siding and Stabling Sidings. Design work for the XRL rolling stocks and signalling systems had been completed and their production was underway. As part of the rails had been delivered to the Shek Kong site, the laying of rails started concurrently with the advance works for the overhead power supply equipment.

— 5. Details of the progress of works are set out at **Annex 1**. 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

6. To facilitate the works of the XRL project, we have continued to implement temporary traffic management measures of different scales. They include providing two temporary flyovers at Austin Road West and Lin Cheung Road to replace the original roads and diverting northward the original section of Jordan Road. The various diversion arrangements were expected to

continue till the end of 2014. We would continue to maintain close liaison with the local communities and relevant District Councils on such arrangements, which include consulting District Councillors on the detailed traffic diversion schemes, arranging site visits where necessary to assess the results of the proposed schemes 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 duly informed about the arrangements.

(b) Tunnel boring works and community liaison for the urban section

7. Representatives of the Government and the MTR Corporation Limited (MTRCL) have kept close dialogue with local residents on the progress of the XRL project and residents' concerns over the project. During the construction period, the XRL Community Liaison Officers, Community Ambassador Team (CAT) and Project Team (PT) made frequent visits to the local community to explain details of the works, and met with local stakeholders to listen to their views. Monitoring points have been established in Tai Kok Tsui (TKT) and around Hoi Wang Road to monitor the conditions of nearby buildings, the ground and public utilities before and after the tunnelling works.

8. Boring works for the northbound tunnel section in TKT would be commenced in 2014. The MTRCL would issue XRL newsletters and notices to inform local residents of the latest works progress.

9. The XRL Information Centre handled over 93 enquiries in the first half of 2013, and provided information on the latest works progress. The CAT has actively reached out to the local community and participated in community activities. On festive occasions, the CAT and PT visited business operators in TKT and along Hoi Wang Road to boost the air of festivity in the local community.

10. On 3 March 2013, the CAT participated in the annual TKT Temple Festival by setting up XRL-themed game booths and exhibition panels, which were enjoyed by local residents, visitors from other districts and also tourists. To further enhance TKT residents' understanding of the XRL project, the CAT also organised XRL roving exhibitions at the MTR Olympic Station and the

Chan Hing Social Service Centre of the Mong Kong Kai Fong Association Limited to provide detailed information on the project and its latest progress.

11. To protect the owners' interests, the MTRCL continued to arrange condition surveys. The relevant survey reports would be delivered to the respective owner corporations.

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

12. To address YTMT residents' concerns over the works for the XRL project and the water level of wells within the area, the Government and MTRCL have been in close dialogues with the Rural Committee, District Councillors, YTMT representatives and residents. Such concerns have been addressed in a timely manner through meetings with residents, site inspections and Community Liaison Group (CLG) meetings.

13. To follow up the concerns of YTMT residents and Members of the Legislative Council (LegCo), representatives of the relevant Government departments and MTRCL attended a LegCo case conference on the impact of XRL works on YTMT residents on 14 December 2012, followed by a site visit to YTMT together with LegCo Members on 4 February 2013, to let Members better understand the follow-up actions taken and their progress. As to the 45 complaints referred by the LegCo Public Complaints Office, the MTRCL has been handling every case separately with the residents and has replied to the Office on the follow-ups.

14. The MTRCL and its contractor would keep close dialogues with the residents to minimise the impact of the works on the local community.

(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 suspected damages to buildings, traffic management, environmental implications, and the tidiness and cleanliness

of works sites, 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. Regarding school talks, visits were paid to three secondary schools and nine primary schools in the first half of 2013 for talks on the XRL project. Students from schools located along the XRL alignment (such as the Sham Shui Po Government Primary School) also visited the XRL Visitors' Centre in the Austin Station on 27 and 28 June 2013, where exhibition panels and models were set up to let students learn more about the XRL project and railway construction.

17. On 26 January 2013, the MTRCL and its contractor joined the Mei Foo Children & Youth Integrated Services Centre of the Boys' and Girls' Clubs Association of Hong Kong and the Po Leung Kuk Tong Nai Kan Junior Secondary College in organising an activity named "Mei Foo is My Home" to beautify XRL site hoardings. Around 100 teachers, students and volunteers participated in the activity to draw paintings about the theme of XRL and environmental protection. All the paintings were then displayed on the site hoardings at Mei Lai Road in Mei Foo.

18. In addition, volunteer teams comprising representatives of the MTRCL and its contractor visited business operators and stakeholders along the XRL alignment in TKT and around Hoi Wang Road before the Chinese New Year.

(III) Employment Opportunities

19. At the end of June 2013, about 8 500 construction workers and technical/professional staff members were employed for the construction and E&M works for the tunnels and the WKT. It is estimated that the total project manpower figure will continue to increase and reach its peak in 2013 and 2014.

UPDATED FINANCIAL SITUATION OF THE XRL PROJECT

20. As at 30 June 2013, the cumulative expenditure for the awarded contracts was \$28.558 billion. All in all, the award of contracts is on schedule and within budget.

21. 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 2.**

Transport and Housing Bureau
October 2013

Detailed half-yearly progress report of works ending 30 June 2013

(I) Progress of works

Tunnels – For the southbound tunnelling works, the tunnel boring
New machine (TBM) commenced from the Mai Po launching shaft
Territories has advanced about 2 200 metres (m). It successfully
Section passed under Wai Tsai Tsuen and would soon reach the Ngau
Tam Mei shaft to complete the southbound tunnelling works.
Structural works for the Mai Po ventilation building was
completed by about 70%.

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

Drill-and-blast tunnelling works at Tai Kong Po continued
northward and have advanced about 1 000 m for both the
northbound and southbound tunnel sections. Tunnel lining
construction started in the southbound tunnel section and was
completed by about 10%.

The TBM launched from the Tsat Sing Kong site has
advanced about 500 m northward and continued to head for
Tai Kong Po. Another TBM assembled in March 2013 at
the Shek Kong site has also advanced about 100 m for the
southbound tunnelling works.

Construction of all diaphragm walls at the Shek Kong Emergency Rescue Siding and Stabling Sidings was completed, and excavation works were also completed by over 90%. Structural works for 8 out of 14 buildings were completed.

Drill-and-blast tunnelling works from the Pat Heung site continued southward under Tai Mo Shan. Together with tunnelling works from the Shek Yam site heading northward, about 60% of the entire 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 on the surrounding environment. Excavation works for the shaft reached a depth of 60m underground, with downward blasting continued. Meanwhile, structural works for the ventilation building and tunnel lining construction were underway.

Drill-and-blast tunnelling works for the southbound tunnel of the Kwai Chung section were completed, while those for the northbound tunnel broke through to the Shek Yam tunnel section in March 2013. Tunnel lining construction was completed by about 85%.

**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. After the southbound tunnel section between Nam Cheong and Mei Lai Road broke through to the Kwai Chung tunnel section in

December 2012, the TBM was re-assembled and commenced the northward tunnelling works at Nam Cheong for the northbound tunnel of the same section. So far, the TBM has advanced about 1 000 m. As regards the southbound tunnel, the TBM continued with the southward tunnelling works towards Yau Ma Tei. Meanwhile, structural works for the Nam Cheong ventilation building was completed by about 50%.

Tunnelling works to the south of Hoi Ting Road progressed as scheduled, and tunnel structural works were commenced.

Reprovisioning of the footbridge connecting Sham Mong Road and Hoi Lai Shopping Centre in Sham Shui Po was completed. The footbridge was re-opened for public use in mid-June 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 the lowest level B4 (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 continued.

Electrical and Mechanical (E&M) Works Installation of E&M equipment was commenced at level B2 of the southern end of the WKT. Major E&M equipment and materials were delivered to the Shek Kong Emergency Rescue Siding and Stabling Sidings for installation. Other E&M systems such as lifts, escalators and fixed communication systems were under inspection and testing in

various production plants.

Regarding the laying of rails, over 1 300 pieces of rail (each measured 18 m in length) were delivered to the Shek Kong site, where the laying of temporary rails was completed by 25%.

The rolling stocks were under production, with the assembly of the main frame for the first train commenced in the second quarter of 2013.

(II) Preparatory work and interface issues

Major Temporary Traffic Measures The various Temporary Traffic Management Scheme (TTMS) in West Kowloon have remained in effect. As the construction of the Lin Cheung Road-Austin Road West Underpass was underway, the MTR Corporation Limited (MTRCL) would plan and co-ordinate in details the integration of the new and existing road systems to minimise the impact on the traffic in West Kowloon.

Also, minor TTMSs have remained in effect at various locations along Sham Mong Road and Hoi Wang Road to make room for reinstatement works.

The Government and MTRCL would continue consultation with the relevant District Councils and local communities about various stages of TTMS.

Half-yearly expenditure report ending 30 June 2013

Table 1 – Situation of expenditure

	Awarded contract sum for the contracts (\$ million)	Cumulative expenditure (\$ million)	Estimated amount* of unresolved claim (\$ million)
Railway Tunnels	22,401	18,088.1	2,597
West Kowloon Terminus (WKT)	14,465	8,358.1	2,572
Electrical and Mechanical (E&M) Works	7,947	2,111.4	0
Total	44,813	28,557.6	5,169

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

Table 2 – Situation of substantiated claims

	Claims resolved			Claims unresolved		
	Number	Amount claimed originally* (\$ million)	Amount awarded (\$ million)	Number	Amount claimed* (\$ million)	Interim award (\$ million)
Railway Tunnels	47	1,737	862	149	2,907.7	310.5
WKT	46	247	187	182	2,670.6	98.6
E&M Works	4	0	0	8	0	0
Total	97	1,984	1,049	339	5,578.3	409.1

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

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

2. As at 30 June 2013, the MTRCL received 436 substantiated claims and the amount claimed in total was about \$7,562 million, representing 16.9% of the awarded contract sum for the contracts. The MTRCL has been discussing the details of the claims with the contractors concerned, and would thoroughly assess the amount claimed. The MTRCL would process each claim in a prudent manner, and the contractors would have to provide sufficient justifications and information. As at 30 June 2013, 97 cases were resolved and about \$1,049 million was awarded, representing about 2.3% 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 \$409.1 million was made for some cases. The MTRCL would continue to handle the cases cautiously. According to the prevailing estimation, the amount claimed could be fully covered by the contingencies of the project and would not result in cost overrun.