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Panel on Transport Meeting on 17 March 2017

Background brief on Central Kowloon Route

Purpose

This paper provides background information on the Central Kowloon Route ("CKR"). It also summarizes the major views and concerns of Legislative Council ("LegCo") Members on the subject.

Background

The need for constructing the Central Kowloon Route

- 2. The east-west traffic movements across Central Kowloon are primarily served by Lung Cheung Road, Boundary Street, Prince Edward Road West, Argyle Street, Waterloo Road, Gascoigne Road Flyover and Chatham Road North. Most of these routes are operating at full capacity at peak hours. Apart from Lung Cheung Road and Gascoigne Road Flyover, the rest of these existing east-west road links have frequent frontage accesses and signal controlled junctions, which are constraining the traffic flow of these road links.
- 3. The planned CKR is an approximately 4.7 kilometre ("km") long dual three-lane trunk road in Central Kowloon linking the Yau Ma Tei Interchange in West Kowloon with Kowloon Bay and the Kai Tak Development in East Kowloon (general layout plan in **Appendix I**). According to the Administration, CKR can enhance the capacity of major east-west road corridors in Kowloon, thus relieving the existing traffic congestion problem and meeting future traffic needs. CKR together

with Tseung Kwan O—Lam Tin Tunnel ("TKO-LTT")¹ and the Trunk Road T2² under planning would form Route 6, linking up West Kowloon and Tseung Kwan O.

- 4. Upon commissioning, CKR will provide an alternative express route enabling vehicles to bypass the congested road sections in Central Kowloon, thus reducing journey time between West Kowloon and Kowloon Bay significantly to around five minutes during rush hours via CKR, about 25 minutes less compared with that without CKR. The adjacent areas, including Wong Tai Sin, Ho Man Tin and Kowloon City, would also be benefited by the improved traffic conditions.
- 5. In the 2017 Policy Address, the Chief Executive announced that the Government would implement the CKR project. Subject to the funding approval by the Finance Committee ("FC"), the Administration planned to commence the construction works in the latter half of 2017 for completion in 2025.

Design and alignment of Central Kowloon Route

6. The original scheme of CKR was a 3.9-km trunk road with about 2.6 km of dual two-lane tunnel connecting the existing Yau Ma Tei Interchange in the west and the previous South East Kowloon Development ("SEKD") (now known as Kai Tak Development) in the east. The Administration subsequently revised the alignment of CKR due to changes in the SEKD scheme, and expanded the dual two-lane configuration to the existing design of a longer dual three-lane configuration with a view to meeting the anticipated traffic demands between east and west Kowloon. Approval from FC was sought to cover the resulting increase in funding for the consultancy study and site investigations with the expanded scope.³

7. The investigation and preliminary design of CKR commenced in

TKO-LTT is a dual two-lane highway of approximately 4.2 km long, connecting Tseung Kwan O in the east with the proposed Trunk Road T2 in Kai Tak Development in the west.

² The proposed Trunk Road T2 is a dual two-lane trunk road of approximately 3.6 km long, connecting CKR and TKO-LTT.

In April 2007, FC approved the funding proposal to increase the Approved Project Estimate from \$99.0 million by \$93.3 million to \$192.3 million in money-of-the-day prices to cover the costs for the consultancy study and site investigations.

August 2007. To select a preferred alignment, the Administration had reviewed more than 40 options formulated under previous CKR studies and developed 14 new options during the process, which included tunnel and flyover options covering most of the Kowloon Peninsula as far north as Boundary Street and across the harbour around the southern tip of Tsim Sha Tsui. The review affirmed that tunnel (as opposed to flyover) options across central Kowloon (as opposed to northern or southern Kowloon) were more favourable for the development of the preferred alignment, taking into account factors such as environmental impacts, land impacts, traffic implications and connections to existing road networks. In June 2011, the Highways Department ("HyD") commissioned the detailed design for the CKR project.

- 8. Since the CKR project would have significant impact on traffic, land use and the environment, the Administration launched a series of public engagement activities, such as consultation with District Councils, local communities and relevant stakeholders, public forums, outreach events and visits, on-street surveys, and in-depth interviews to collect public views and to explain the progress of the project. A dedicated website for the project was also launched. In addition, HyD conducted two phases of public engagement exercises in 2007 to 2009 and December 2012 to March 2013 respectively to collect public views. A Community Liaison Centre in Yau Ma Tei started operation in April 2013 to enhance communication with the public on the project.
- 9. According to the Administration, in arriving at the preferred alignment, it had incorporated views from the public, and paid particular attention to public concerns, such as local culture and heritage conservation, reprovisioning of community facilities and land use planning, and environmental issues.

Major views and concerns of Members

10. Members have expressed views and concerns on the CKR project at the meetings of the Panel on Transport ("the Panel"), the Public Works Subcommittee and FC. Their major views and concerns are summarized in the ensuing paragraphs.

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⁴ http://www.ckr-hyd.hk/en/homepage.php

Impact on buildings along the Central Kowloon Route alignment

- 11. Members noted that the currently adopted preferred alignment scheme of CKR would not involve resumption and demolition of private buildings. As the alignment would go through developed areas, parts of the tunnels would have to be constructed in the underground stratum underneath existing buildings. Moreover, temporary reclamation of Kowloon Bay would be required to facilitate the construction of the underwater tunnel section.
- 12. Having regard to the grave concerns of local residents over the impact of CKR construction on the structural safety and valuation of the aged buildings along the tunnel alignment, Members urged the Administration to address their concerns prior to taking forward the CKR project and fully inform local residents on the impact of the project.
- 13. The Administration explained that the section of CKR between Shanghai Street and Ma Tau Wai would be constructed deep under rock stratum using drill-and-blast method, which had been adopted in Hong Kong for more than 40 years. HyD had taken into account such experience and developed appropriate design and construction arrangements for CKR to ensure construction safety and, in particular, that its construction and subsequent operations would not affect the structural integrity and use of buildings along the tunnel alignment. It was envisaged that the valuation of the existing buildings along CKR The Administration further advised that the would not be affected. additional loadings resulting from the redevelopment of buildings along the tunnel alignment had been allowed in the design of the tunnels of In other words, CKR would not affect the redevelopment potential under existing building regulations, land leases and Outline Zoning Plans.

Local culture study and heritage conservation

14. On Members' concerns about heritage conservation and the need to preserve local culture, the Administration advised that the consultant of the CKR project had carried out a local culture study and a social impact assessment which aimed at understanding the Yau Ma Tei local culture and characteristics, and provided guiding principles based on sustainable development concepts and evaluation criteria for the CKR alignment selection, reprovisioning arrangements and planning of land use in the affected areas in Yau Ma Tei associated with the construction of CKR.

- 15. The preservation of the historic building of the ex-Yau Ma Tei Police Station ("YMTPS") had been a major theme in developing the alignment options at the western end.⁵ YMTPS comprised an old wing and a new wing built in 1922 and 1957 respectively.
- According to the Administration, the preferred alignment scheme would avoid the old wing of YMTPS and would run underneath about one-third of the new wing which could be retained technically with underpinning. The underpinning method might cause minor but repairable damage to the building. Yet, it would also increase the construction cost and time. Members noted that the construction of CKR would only entail the need to demolish some ancillary facilities of the new wing of YMTPS. They requested the Administration to pay particular attention to the inner parts of YMTPS as well. Since the CKR project is a designated project under the Environmental Impact Assessment Ordinance (Cap. 499) ("EIAO"), the Administration had advised that it would conduct a Built Heritage Impact Assessment on YMTPS for submission to the Antiquities and Monuments Office.

Reprovisioning arrangements and land use planning

17. At the Panel meeting on 16 May 2008, members noted that under the revised proposal, the Yau Ma Tei Jockey Club Polyclinic building would not be affected and could continue to be in operation. Moreover, the Post Office and the Library would be reprovisioned temporarily in Yau Ma Tei during construction, and moved to a permanent accommodation in the same area after construction. The Jade Hawkers' Bazaar would also be reprovisioned temporarily in Yau Ma Tei during construction, and would be moved back to the original location thereafter. The Administration would explore possible options to make way for the operation of the Temple Street night market during the CKR construction. Members also noted that the Yau Ma Tei Multi-storey Car Park Building would have to be demolished to facilitate the tunnel construction works and it would not be reprovisioned. In addition, YMTPS and Yau Ma Tei Specialist Clinic ("YMTSC")⁶ on the western side had to be reprovisioned to facilitate the construction work of CKR.

⁶ The clinical services originally provided at YMTSC at Battery Street in Yau Ma Tei, were relocated in phases to the new specialist clinics building in the Queen Elizabeth Hospital from 12 December 2016.

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The ex-YMTPS building located at Canton Road were accorded with Grade 2 historic building status in December 2009. The police station in Yau Ma Tei was relocated to the new premises at Yau Cheung Road on 21 May 2016.

- 18. According to the Administration, the construction of CKR in Yau Ma Tei and the relocation of community facilities would provide opportunities for land use restructuring to enhance the area. The consultant of the CKR project had carried out an urban design study to develop the plan for future land use for the affected areas under the sustainable development principles. Increased greening and quality open space would be provided.
- 19. When examining the Administration's funding proposal for the reprovisioning of YMTPS in 2013, some Panel members expressed concern that the Administration's arrangement of first commencing the advance works of the CKR project would pre-empt the result of the public engagement exercise on CKR. The Administration explained that the construction of CKR had been discussed for years since 1998 and various alignment options had been considered. In 2008, Panel members generally supported the recommended alignment. According to the feedback collected from District Councils and the public during the phase one exercise, the public generally supported the construction of CKR and its recommended alignment, as well as the need for early construction of CKR.
- 20. On 7 June 2013 and 21 June 2013, FC approved \$982.9 million and \$1,891.6 million in money-of-the-day prices for the reprovisioning of YMTPS and YMTSC respectively.

Environmental issues

- 21. The Panel noted that some local residents had raised concerns on air and noise impacts in Yau Ma Tei that might arise from the construction of CKR. It had requested the Administration to put in place suitable mitigation measures to address the air and noise pollution arising from the project.
- 22. The Administration advised that the study consultant had proposed to include the following measures for detailed study in the Environmental Impact Assessment and in the design of CKR:
 - (a) a landscaped deck would be constructed at the western tunnel portal so that the vehicular entrance and exit would be moved from Ferry Street to Hoi Wan Road, farther away from existing residential buildings. This arrangement would also provide additional greening to the area;

- (b) on ventilation design, an exhaust extract system would be installed to limit emissions at the portal; and
- (c) the ventilation building would be relocated from the previously proposed location near Ferry Street to the Yau Ma Tei Interchange of the West Kowloon Highway. The new location would allow a better dispersion of tunnel exhaust to reduce air quality impact on existing dwellings.
- 23. Regarding the concerns on the traffic noise arising from Gascoigne Road Flyover, the Administration advised that it would continue to examine reprovisioning the Flyover, with noise barriers or other appropriate measures, so as to maintain traffic on the Flyover during CKR construction.
- 24. In response to a question raised at the Council meeting of 19 June 2013 on the noise impact during the construction of CKR, the Administration advised that for the part of the CKR works to be implemented on the ground level nearer to residential buildings, the Administration would adopt a series of mitigation measures as required by the Technical Memorandum of EIAO to minimize the noise impact of the works to nearby residents. Apart from general alleviation measures such as low-noise machinery, noise insulation equipment, good site management, site hoardings and optimised procedures, the works departments would also erect full noise enclosures at all mucking-out points to reduce the noise during construction. For the tunnel section between Kansu Street and Kowloon City Ferry Pier Public Transport Interchange, the cut-and-cover method would be used. The works departments would arrange to have the works carried out under temporary decking or beneath the tunnel top decking to alleviate construction noise.

Concerns over the implementation of public works projects

- 25. Some members expressed concern that in recent years, situations of major infrastructure projects experiencing cost overruns and delays were not uncommon. They urged the Administration to take effective measures to avoid cost overruns and works delay.
- 26. In response to a question raised at the Council meeting of 1 March 2017, the Secretary for Development ("SDEV") advised that the Development Bureau established the Project Cost Management Office ("PCMO") in June 2016 to strengthen management over the construction costs and enhance the cost-effectiveness of public works projects.

PCMO had reviewed over 60 public works projects to be submitted to FC for vetting and approval, and would collaborate with the bureaux and departments concerned to control the overall construction costs and avoid project delay. CKR was among these projects vetted by PCMO.

- In examining the Estimates of Expenditure of 2016-2017, a 27. Member raised a written question about the reasons for the significant difference between the latest estimate for the project cost of CKR main works, which was at about \$44 billion, vis-à-vis the 2002 estimate of \$10 billion. In the written reply, the Administration advised that the 2002 estimate at \$10 billion (in December 2000 prices) was based on a scheme. Subsequent enhancement in the conceptual incorporating additional requirements, strengthening of heritage and landscaping works, price adjustments and change in market conditions had all affected the project cost. The rough order of project cost in the Estimates of Expenditure of 2016-2017 was only a preliminary estimate. The Administration would finalize the estimate of project cost for seeking approval from FC in due course.
- 28. Members also expressed concern about whether the manpower supply of various trades of the construction industry could meet the manpower demand of the public works projects under planning. In response, SDEV advised at the Council meeting of 3 March 2014 that the Administration and the Construction Industry Council ("CIC") were committed to enhancing training for construction workers and publicity so as to attract more new entrants, particularly young people, to the construction industry. In mid-April 2014, the Labour Department collaborated with relevant policy bureaux and departments in rolling out a new arrangement to expedite the preparatory work for processing applications submitted by contractors of public sector works for importing workers in the 26 shortage trades identified by CIC under the Supplementary Labour Scheme.

Other concerns on the CKR project

29. Members urged the Administration to speed up the delivery of the project and study in detail the potential safety hazard of tunnel operations and put in place necessary contingency measures. Opportunity should be taken to examine how the CKR project could help improve the sustainability of adjacent areas such as Ma Tau Wai and To Kwa Wan.

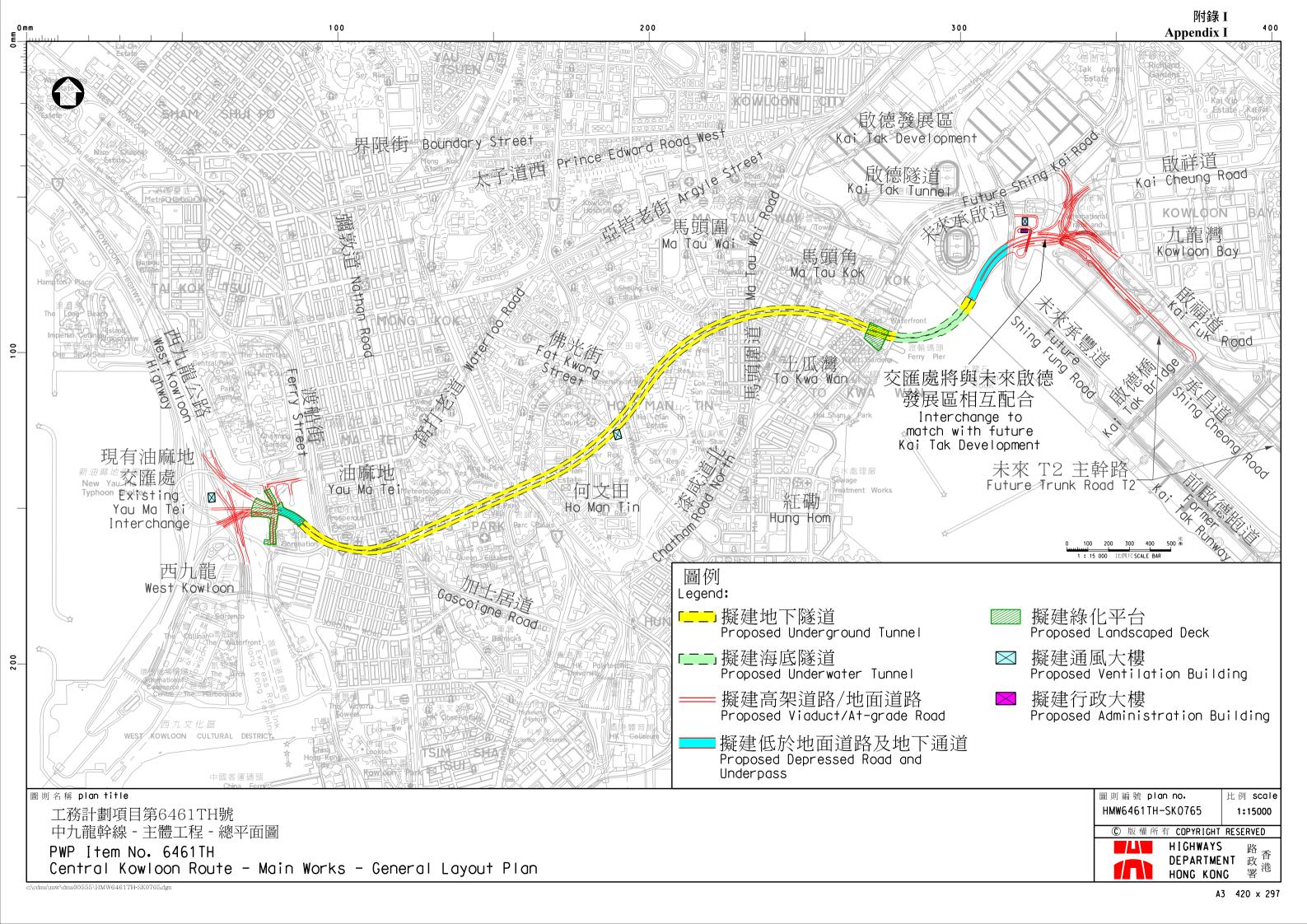
Relevant papers and questions raised at Council meetings

30. In the fourth and fifth LegCo, Members raised nine questions relating to CKR and implementation of infrastructure projects at the Council meetings. The hyperlinks to relevant papers and questions are listed at **Appendix II**.

Latest development

31. The Administration plans to consult the Panel on the funding proposal for for upgrading of 6461TH—Central Kowloon Route—Main Works to Category A at the Panel meeting to be held on 17 March 2017.

Council Business Division 4
<u>Legislative Council Secretariat</u>
13 March 2017



Central Kowloon Route

List of relevant papers

Date of	Committee	Minutes/Paper	LC Paper No.
17.2.1998	Public Works Subcommittee ("PWSC")	Administration's paper on 582TH — Central Kowloon Route — consultants' design fees and site investigations	PWSC(97-98)133 http://www.legco.gov.hk/y r97-98/english/fc/pwsc/pa pers/p1702133.htm
		Minutes of meeting	PWSC 79 http://www.legco.gov.hk/y r97-98/english/fc/pwsc/mi nutes/pwmn1702.htm
13.3.1998	Panel on Transport ("TP") and Panel on Planning, Lands and Works	Administration's paper on Central Kowloon Route	CB(1)1103/97-98(01) http://www.legco.gov.hk/y r97-98/english/panels/tp/p apers/t13032aj.htm
		Minutes of meeting	CB(1)1290/97-98 http://www.legco.gov.hk/y r97-98/english/panels/tp/m inutes/tj130398.htm
25.3.1998	PWSC	Administration's paper on 582TH — Central Kowloon Route — consultants' design fees and site investigations	PWSC(97-98)143 http://www.legco.gov.hk/y r97-98/english/fc/pwsc/pa pers/p2503143.htm
		Minutes of meeting	PWSC 86/97-98 http://www.legco.gov.hk/y r97-98/english/fc/pwsc/mi nutes/pwmn2503.htm

Date of meeting	Committee	Minutes/Paper	LC Paper No.
7.2001	TP	Administration's paper on Central Kowloon Route	CB(1)1688/00-01(03) http://www.legco.gov.hk/y r00-01/english/panels/tp/p apers/a1688e03.pdf
26.4.2002	TP	Administration's paper on Central Kowloon Route	CB(1)1558/01-02(03) http://www.legco.gov.hk/y r01-02/english/panels/tp/p apers/tp0426cb1-1558-3e. pdf
		Administration's supplementary information paper on Central Kowloon Route	CB(1)2130/01-02(06) http://www.legco.gov.hk/y r01-02/english/panels/tp/p apers/tp0426cb1-2130-6e. pdf
		Minutes of the meeting	CB(1)2200/01-02 http://www.legco.gov.hk/y r01-02/english/panels/tp/m inutes/tp020426.pdf
24.11.2006	TP	Administration's paper on Central Kowloon Route and improvement to Tuen Mun Road	CB(1)296/06-07(04) http://www.legco.gov.hk/y r06-07/english/panels/tp/p apers/tp1124cb1-296-4-e. pdf
		Administration's supplementary information paper on Central Kowloon Route	CB(1)515/06-07(01) http://www.legco.gov.hk/y r06-07/english/panels/tp/p apers/tp1124cb1-515-1-e. pdf

Date of meeting	Committee	Minutes/Paper	LC Paper No.
		Minutes of the meeting	CB(1)527/06-07
			http://www.legco.gov.hk/y r06-07/english/panels/tp/m inutes/tp061124.pdf
19.12.2006	PWSC	Administration's paper on Central Kowloon	PWSC(2006-07)51
		Route — consultants' design fees and site investigations	http://www.legco.gov.hk/y r06-07/english/fc/pwsc/pa pers/p06-51e.pdf
		Minutes of meeting	PWSC 33/06-07
			http://www.legco.gov.hk/y r06-07/english/fc/pwsc/mi nutes/pw061219.pdf
7.2.2007	PWSC	Administration's paper on Central Kowloon	PWSC(2006-07)74
		Route — consultants' design fees and site investigations	http://www.legco.gov.hk/y r06-07/english/fc/pwsc/pa pers/p06-74e.pdf
		Minutes of meeting	PWSC 57/06-07
			http://www.legco.gov.hk/y r06-07/english/fc/pwsc/mi nutes/pw070207.pdf
20.4.2007	Finance Committee	Minutes of meeting	FC 100/06-07
	("FC")		http://www.legco.gov.hk/y r06-07/english/fc/fc/minut es/fc070420.pdf
16.5.2008	TP	Administration's paper on Central Kowloon	CB(1)1494/07-08(02)
		Route progress report	http://www.legco.gov.hk/y r07-08/english/panels/tp/p apers/tp0516cb1-1494-2-e .pdf

Date of meeting	Committee	Minutes/Paper	LC Paper No.
		Minutes of meeting	CB(1)2205/07-08 http://www.legco.gov.hk/y r07-08/english/panels/tp/m inutes/tp080516.pdf
29.10.2008	-	Hon Andrew CHENG raised a question on traffic noise and air pollution problems along Gascoigne Road Flyover	http://www.info.gov.hk/gia /general/200810/29/P2008 10290198.htm
27.2.2009	TP	Administration's paper on Central Kowloon Route - progress report	CB(1)858/08-09(03) http://www.legco.gov.hk/y r08-09/english/panels/tp/p apers/tp0227cb1-858-3-e. pdf
		Background brief on Central Kowloon Route prepared by the Legislative Council Secretariat	CB(1)859/08-09 http://www.legco.gov.hk/y r08-09/english/panels/tp/p apers/tp0227cb1-859-e.pd f
		Minutes of meeting	CB(1)1351/08-09 http://www.legco.gov.hk/y r08-09/english/panels/tp/m inutes/tp20090227.pdf
11.3.2009	-	Hon Starry LEE raised a question on impact of infrastructural projects in To Kwa Wan and Ma Tau Kok districts	http://www.info.gov.hk/gia /general/200903/11/P2009 03110149.htm

Date of meeting	Committee	Minutes/Paper	LC Paper No.
1.4.2009	-	Dr Hon Priscilla LEUNG raised a question on installation of road barriers along the road sections	http://www.info.gov.hk/gia /general/200904/01/P2009 04010223.htm
10.6.2009	-	Hon James TO raised a question on Greening Master Plans	http://www.info.gov.hk/gia /general/200906/10/P2009 06100139.htm
21.3.2012	-	Hon WONG Kwok-kin raised a question on traffic improvement measures in Kwun Tong North	http://www.info.gov.hk/gia /general/201203/21/P2012 03210195.htm
15.3.2013	TP	Administration's paper on 3277LP — Reprovisioning of Yau Ma Tei Police Station (Advance project for Central Kowloon Route)	http://www.legco.gov.hk/y r12-13/english/panels/tp/p
		Background brief on Central Kowloon Route prepared by the Legislative Council Secretariat	CB(1)688/12-13(06) http://www.legco.gov.hk/y r12-13/english/panels/tp/p apers/tp0315cb1-688-6-e. pdf
		Administration's follow-up paper	CB(1)995/12-13(01) http://www.legco.gov.hk/y r12-13/english/panels/tp/p apers/tp0315cb1-995-1-e. pdf

Date of meeting	Committee	Minutes/Paper	LC Paper No.
8		Minutes of meeting	CB(1)1516/12-13 http://www.legco.gov.hk/y r12-13/english/panels/tp/m inutes/tp20130315.pdf
8.5.2013	PWSC	Administration's paper on Head 703 — Buildings Law and Order — Police 277LP — Reprovisioning of Yau Ma Tei Police Station	PWSC(2013-14)4 http://www.legco.gov.hk/y r12-13/english/fc/pwsc/pa pers/p13-04e.pdf
		Administration's follow-up paper	PWSC57/12-13(01) http://www.legco.gov.hk/y r12-13/english/fc/pwsc/pa pers/pwsc0508pwsc-57-1- e.pdf
		Minutes of meeting	PWSC65/12-13 http://www.legco.gov.hk/y r12-13/english/fc/pwsc/mi nutes/pwsc20130508.pdf
7.6.2013	FC	Recommendations of the Public Works Subcommittee on Public Works Programme and capital subvention projects	FCR(2013-14)13 http://www.legco.gov.hk/y r12-13/english/fc/fc/paper s/f13-13e.pdf
		Minutes of meeting	http://www.legco.gov.hk/y r12-13/english/fc/fc/minut es/fc20130607.pdf

Date of meeting	Committee	Minutes/Paper	LC Paper No.
19.6.2013	-	Dr Hon Priscilla LEUNG Mei-fun raised a question on the tunnel design of the Central Kowloon Route and the impact of future construction works	http://www.info.gov.hk/gia /general/201306/19/P2013 06180646.htm
3.12.2014	-	Dr Hon LAM Tai-fai raised a question on cost overruns and delay of major infrastructure projects	http://www.info.gov.hk/gia /general/201412/03/P2014 12030932.htm
25.2.2015	-	Hon WONG Kwok-kin raised a question on traffic situation in East Kowloon	http://www.info.gov.hk/gia /general/201502/25/P2015 02240622.htm
7.4.2016	FC	Replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2016-2017	http://www.legco.gov.hk/y r15-16/english/fc/fc/w_q/t hb-t-e.pdf
20.1.2017	TP	Administration's paper on transport-related policy initiatives of the Transport and Housing Bureau under the 2017 Policy Address and Policy Agenda	CB(4)413/16-17(03) http://www.legco.gov.hk/y r16-17/english/panels/tp/p apers/tp20170120cb4-413- 3-e.pdf
1.3.2017	-	Hon Paul TSE raised a question on cost estimates of infrastructure projects	http://www.info.gov.hk/gia /general/201703/01/P2017 030100537.htm

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