

立法會 *Legislative Council*

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Panel on Transport Meeting on 27 February 2009

Background Brief on Reconstruction and Improvement of Tuen Mun Road

Purpose

This paper sets out the background to the reconstruction and improvement of Tuen Mun Road, and summarizes the major views and concerns expressed by the Panel on Transport (the Panel) on the matter.

Tuen Mun Road

2. Tuen Mun Road comprises two major sections – the Expressway Section (Wong Chu Road to Tsuen Wan Road) and the Town Centre Section (Wong Chu Interchange to Lam Tei Interchange).

3. According to the Administration's paper [LC Paper No. CB(1) 848/03-04(03)] submitted in January 2004, the design capacity of the Expressway Section is 118 000 vehicles. In 2003, the average daily traffic on the Expressway Section during weekdays was about 106 000 vehicles. The vehicle/capacity (v/c) ratio¹ was 1.1 during peak hours. As for the Town Centre Section, its design capacity is 78 000 vehicles. The v/c ratios of those busy sections, i.e. the southbound two-lane carriageways of the Tsing Tin Road Interchange section, the Town Plaza section and the Wong Chu Road Interchange section, during the morning peak period (7 am – 9 am) were 1, 0.9 and 1 respectively.

¹ v/c ratio is normally used to reflect traffic situation during peak hours. A v/c ratio equal to or less than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration. A v/c ratio below 1 is considered acceptable. **A v/c ratio above 1.0 indicates the onset of mild congestion** and a v/c ratio between 1.0 and 1.2 would indicate a manageable degree of congestion. Above 1.2 indicates more serious congestion with traffic speeds progressively deteriorating with further increase in traffic and such v/c ratios are considered unacceptable.

Traffic impact on Tuen Mun Road upon the commissioning of Hong Kong – Shenzhen Western Corridor

4. According to the Administration's paper [LC Paper No. CB(1) 1912/03-04(26)] submitted in May 2004, upon the commissioning of Hong Kong – Shenzhen Western Corridor (HK-SWC) (subsequently renamed as Shenzhen Bay Port (SBP)) and Deep Bay Link (DBL), the v/c ratio for the peak period at the most critical section of the Expressway Section (i.e. the Sham Tseng Section) was projected to increase from 1.1 in 2002 to about 1.19. As for the Town Centre Section, the traffic flow was projected to increase by 10% – 15%. The v/c ratios of the critical sections, i.e. the southbound carriageways of Tuen Mun Road at Tsing Tin Interchange and Wong Chu Interchange, would range from 1.04 to 1.18.

5. In anticipation of an increase in traffic flow on Tuen Mun Road, the Administration proposed a number of improvement works to improve the traffic conditions of the road. These include the improvements to the Town Centre Section and the reconstruction of the Expressway Section. Besides, the long-term needs for transport infrastructure development in North West New Territories (NWNT) and North Lantau would be studied under the NWNT Traffic and Infrastructure Review (the Review). The findings of the Review were reported to the Panel in April 2005 recommending, among others, the construction of the Tuen Mun Western Bypass (TMWB) and Tuen Mun – Chek Lap Kok Link (TM-CLKL). Relevant information on SBP and traffic infrastructure in NWNT is set out in **Appendix I**.

Feasibility of widening Tuen Mun Road to dual 4-lane configuration

6. In considering a funding proposal related to the reconstruction and improvement of Tuen Mun Road at the Panel meeting on 23 April 2004, members requested the Administration to conduct a study on the feasibility of widening the existing dual 3-lane Tuen Mun Road to dual 4-lane. The Administration subsequently briefed the Panel on 22 April 2005 on the findings of the study and the proposed short to medium term measures to improve the traffic conditions of Tuen Mun Road.

7. The Administration pointed out that, while widening Tuen Mun Road to dual 4-lane with a full-width hard shoulder would be technically feasible (except for the sections at Ting Kau and Siu Lam Interchange), it had decided not to proceed with the proposal, having regard to the following -

- (a) A dual 4-lane scheme would entail significant land implications in the So Kwun Wat and Sham Tseng areas. It was estimated that resumption of about 7,000 metre² of private land was likely to be required, with a total resumption cost of about \$200 million, not to mention the time required for the land resumption;

- (b) Widening of Tuen Mun Road to dual 4-lane configuration would increase traffic capacity and consequentially bring about additional noise impact, and hence, it would necessitate the provision of additional noise barriers at an estimated cost of about \$1,300 million;
- (c) The programme for widening Tuen Mun Road to dual 4-lane was expected to take at least 20 months longer than the planned reconstruction and improvement works in the present dual 3-lane configuration; and
- (d) The cost of widening Tuen Mun Road to dual 4-lane was estimated to be about \$5,500 million, as compared to \$3,200 million for the reconstruction and improvement works in the present dual 3-lane configuration.

8. The Administration concluded that it would proceed with its plan to reconstruct and improve Tuen Mun Road on the basis of a dual 3-lane configuration.

Alternative measures to improve the traffic conditions of Tuen Mun Road

9. The Administration also informed members that, while it would not widen Tuen Mun Road to dual 4-lane, the road would be upgraded to the prevailing expressway standard to improve the overall operation of the road. Moreover, short to medium term measures as set out in **Appendix II** would be/had been implemented to improve the traffic conditions of Tuen Mun Road, e.g. widening of the section of Tuen Mun Road at Tsing Tin Interchange from dual 2-lane to dual 3-lane.

10. In November 2006, the Administration further proposed to widen the section of Tuen Mun Road between Yan Oi Town Square and Wong Chu Road from dual 2-lane to dual 3-lane carriageway as shown in **Appendix III**. The Panel expressed support for the proposed widening works and called for their early implementation.

Concerns raised by the Panel

Measures to mitigate traffic impacts of other road networks on Tuen Mun Road and to achieve a more balanced traffic distribution between Route 3 and Tuen Mun Road

11. The Panel has long been concerned about the traffic impacts of other road networks on Tuen Mun Road, particularly those from SBP and DBL. At its meeting on 30 January 2004, the Panel discussed such likely traffic impacts as well as the options being considered by the Administration to improve the traffic flow of Tuen Mun Road. At its meeting on 23 April 2004, the Panel discussed measures to improve the traffic conditions of Tuen Mun Road and efforts to enhance the traffic distribution between Tuen Mun Road and Route 3.

12. In the course of deliberation, the Panel cast doubt on the basis on which the conclusion that the existing highway network in NWNT could cope with the traffic demands arising from the commissioning of SBP/DBL was drawn. Members called on the Administration to implement adequate transport infrastructures to cope with the rising traffic demands in a timely manner.

13. At the Panel meeting on 22 April 2005, in reviewing the long-term needs for transport infrastructure development in NWNT and North Lantau, the Panel passed a motion urging the Administration to expeditiously study the implementation of TMWB and TM-CLKL, so as to cope with the increasing traffic demands arising from the commissioning of SBP.

14. To achieve a more balanced traffic distribution between Route 3 and Tuen Mun Road to relieve the traffic congestion on Tuen Mun Road, the Panel has reviewed with the Administration and Route 3 (CPS) Company (the franchisee) on means to increase the utilization of Route 3. At its meeting on 19 December 2005, the Panel requested the Administration to discuss with the franchisee measures to rationalize the utilization of Route 3 and the alternative non-tolled routes, and the need to lower the tunnel tolls so as to achieve traffic diversion purpose. The Panel held a special meeting on 5 May 2007 to follow up the progress of enhancing the utilization of Route 3. Members urged the Administration and the franchisee to launch a pilot scheme on toll reduction, in order to obtain realistic information and data on actual traffic impact for assessing the desirability of extending the franchise in exchange for toll reduction. The Administration reported in November 2008 that it had discussed various measures with the franchisee, including franchise extension in exchange for toll reduction, and the proposed trial scheme on toll concession. However, no breakthrough could be achieved in the discussion.

Contingency measures for handling congestion of Tuen Mun Road upon commissioning of SBP

15. At its meeting on 27 April 2007, when the Panel was briefed on the traffic and transport arrangements for the commissioning of SBP, members expressed concern about the contingency measures for handling congestion of Tuen Mun Road upon commissioning of SBP. In response, the Administration provided a paper [CB(1)2073/06-07(01)] on the contingency measures specifically mapped out for the purpose (**Appendix IV**).

Traffic and environmental impacts arising from reconstruction and improvement of Tuen Mun Road

16. At various meetings of the Panel, members repeatedly urged the Administration to put in place adequate measures to ensure smooth flow of traffic during reconstruction and improvement of Tuen Mun Road. The Administration informed members that three traffic lanes would be maintained during peak hours, i.e. 7 am to 7 pm for the Kowloon-bound lanes and 2 pm to 9 pm for the Tuen Mun-bound lanes.

During non-peak hours, at least two traffic lanes would be maintained. The Police and the Transport Department would work with contractors to implement appropriate traffic diversion plans to minimize impacts on traffic.

17. Members were also concerned about the increase in traffic noise levels as a result of the widening of Tuen Mun Road. Members have urged the Administration to work out effective mitigation measures and suggested ways to improve the design of the noise barriers and semi-enclosures to be retrofitted along Tuen Mun Road to mitigate the increase in traffic noise. Members have also expressed concerns about implementation of greening measures and reducing the number of trees to be felled as far as possible within the scope of the relevant works.

Latest developments

18. In April 2008, the Finance Committee approved the funding proposal for reconstructing and improving the Expressway Section to meet the prevailing expressway standard. Due to the recent significant increase in the price of major construction materials, the Administration plans to submit a funding application to the Public Works Subcommittee in April 2009 for increasing the approved project estimate for upgrading Tuen Mun Road to expressway standard to cater for the higher-than-expected tender price. The Administration intends to consult the Panel on the funding application at its meeting on 27 February 2009.

Relevant papers

19. Members are invited to access the Legislative Council's website (<http://www.legco.gov.hk>) for details of the relevant papers and minutes of the meeting of the Panel.

Council Business Division 1
Legislative Council Secretariat
26 February 2009

Shenzhen Bay Port and traffic infrastructures in the northwestern part of the New Territories

Shenzhen Bay Port

Shenzhen Bay Port (SBP) is a dual three-lane carriageway spanning across Deep Bay, linking the northwestern part of the New Territories (NWNT) with Shekou in Shenzhen.

Route 10

2. When consulted on Hong Kong – Shenzhen Western Corridor (subsequently renamed as SBP) and Deep Bay Link (DBL) in October 2001, the Panel on Transport raised concerns that SBP and DBL, upon opening, would cause unacceptable traffic congestion at Tuen Mun town centre and Tuen Mun Road. Some members considered that the planning of the supporting infrastructure, especially Route 10 - North Lantau to Yuen Long Highway (Route 10 Northern Section), should be co-ordinated with the SBP and DBL programme. Route 3 (CPS) Company advised that there was still spare capacity at Route 3 and the route would not reach saturation until 2016. Route 10 Northern Section would not be required until then.

3. According to the Administration's forecasts in 2001, Route 3 would be saturated by 2010-2011 during peak hours. In view of the concerns raised by the Panel, Tuen Mun District Council (DC) and Yuen Long DC, the Administration indicated that it was prepared to start the detailed design of Route 10 Northern Section in 2002 to retain the flexibility of completing the project between 2007-2008 and 2010-2011.

4. There was a suggestion that Route 10 be replaced with a link road between Tuen Mun and Chek Lap Kok. The Administration explained that such a route was under consideration but its priority was lower than that of Route 10 because it related to future traffic demand arising from development of Lantau Island. This link could not perform the important functions of Route 10, such as providing a connection between NWNT and the urban areas and container ports, and relieving Tuen Mun Road and Route 3 in the longer term.

5. The funding proposal for the detailed design of Route 10 Northern Section was rejected by the Finance Committee (FC) in March 2002. The Administration subsequently included Route 10 Northern Section in the “NWNT Traffic and Infrastructure Review” (the Review) as one of the possible highway options to be studied. The Review later concluded that the existing and committed road networks, together with necessary improvement measures, would be able to cope with the traffic demands (including those to be generated from SBP and the Hong Kong–Zhuhai–Macau Bridge) up to at least 2016. No new major highway

infrastructure project would be required.

NWNT Traffic and Infrastructure Review

6. In August 2003, the Panel was briefed on the preliminary outcome of the Review. The purpose of the Review is to develop a long-term strategy for the development of highway infrastructure in NWNT and the North Lantau region. In June 2004, the Panel revisited the Review. The Administration pointed out that a proposed implementation programme for the necessary infrastructure could only be drawn up when the traffic demands arising from the Hong Kong-Zhuhai-Macao Bridge and the development programme for Lantau were available.

7. At the Panel meeting on 22 April 2005, the Administration updated members on the findings of the Review. The Panel passed a motion urging the Government to expeditiously study the implementation of Tuen Mun Western Bypass (TMWB) and Tuen Mun - Chek Lap Kok Link (TM-CLKL), so as to cater for the traffic generated by the commissioning of SBP.

8. The Administration reported to the Panel the latest progress of the Review in July 2007. Members were in general supportive of the recommendation to construct TMWB and TM-CLKL to serve as an alternative land access to the Airport and significantly reduce the travelling distance between NWNT and Lantau. The Panel indicated support for the funding proposal on the investigation and preliminary design (I&PD) studies for the two road projects. However, some members expressed concern that with the construction of TMWB, NWNT residents might tend to drive to the urban area via TMWB and Tuen Mun Road, thus bringing additional traffic load to Tuen Mun Road. The Panel urged the Administration to expedite improvement works to Tuen Mun Road.

9. In January 2008, FC approved the funding proposal for the I&PD studies of the above two road projects. To facilitate the design studies, the Administration launched certain public engagement activities to solicit views from the public in September 2008. The construction works were to commence in 2011 for completion in 2016.

Relevant motions moved at Council meetings

10. At the Council meeting on 8 March 2006, a motion on "Expeditiously improving the traffic arrangements in the western and northwestern parts of the New Territories" moved by Mrs Hon Selina CHOW, as amended by Hon WONG Kwok-hing and Hon CHEUNG Hok-ming, was passed.

11. At the Council meeting on 7 February 2007, a motion on "Expeditiously implementing the construction of cross-boundary transport infrastructures between

Hong Kong and the Mainland" moved by Hon CHEUNG Hok-ming, as amended by Hon Albert HO, was passed.

12. At the Council meeting on 30 January 2008, a motion on "Optimizing the use of the Hong Kong-Shenzhen Western Corridor" moved by Hon Jeffrey LAM, as amended by Hon CHEUNG Hok-ming and Hon Andrew CHENG, was passed.

Council Business Division 1
Legislative Council Secretariat
26 February 2009

Short to Medium Term Measures to Improve the Traffic Conditions of Tuen Mun Road (TMR)

Improvements to the Town Centre Section (TCS) of TMR

(1) Lengthening of Bus Bays alongside TCS of TMR

Scope

The works, completed in February 2005, involved lengthening the existing bus bay on TMR southbound near Tseng Choi Street.

Traffic Benefits

2. The bus bay near Tseng Choi Street could accommodate at most three buses each time in the past before the improvement works. Due to the limited capacity of this bus bay, buses very often had to queue up when loading/unloading passengers, thus blocking traffic along TMR – TCS. Lengthening this bus bay by 13 metres has increased its capacity, which in turn has reduced obstruction to the main road traffic.

(2) Improvement of Merging Lane from Tuen Hi Road into TMR – TCS

Scope

3. The improvement works will lengthen the merging length and improve the road markings to facilitate a better traffic merging arrangement from Tuen Hi Road to TMR northbound. Works are scheduled to commence in mid 2005 for completion by end 2005.

Traffic Benefits

4. Tuen Hi Road is a service road parallel to TMR with a short merging lane to TMR northbound. As a result of the difficulties in merging into TMR, traffic queues often develop along Tuen Hi Road, especially during peak hours, thus blocking vehicles from TMR entering this service road for

loading/unloading activities. This blockage further leads to tailing back of vehicles to TMR – TCS, thus causing congestion. The proposed improvement works will improve both the local traffic and road safety conditions.

(3) Widening of TMR at Tsing Tin Road Interchange Section

Scope

5. The improvement works will widen TMR at Tsing Tin Road Interchange Section to a dual 3-lane carriageway. The feasibility study of the works is underway. The improvement works are scheduled to start tentatively in early 2007 for completion in mid 2008.

Traffic Benefits

6. The existing TMR at the Tsing Tin Road Interchange Section is a dual 2-lane carriageway with a v/c ratio of about 1.04. This is one of the most critical sections in the TMR – TCS. It is forecast that after the commissioning of the Hong Kong – Shenzhen Western Corridor (HK-SWC) and Deep Bay Link (DBL), the v/c ratio at this section will increase to 1.18. After widening this section of TMR to a dual 3-lane carriageway, the v/c ratio at this section is expected to be reduced to below 1. A layout plan of the proposed works is at **Annex** to this Enclosure.

(4) Modification of Directional Signs

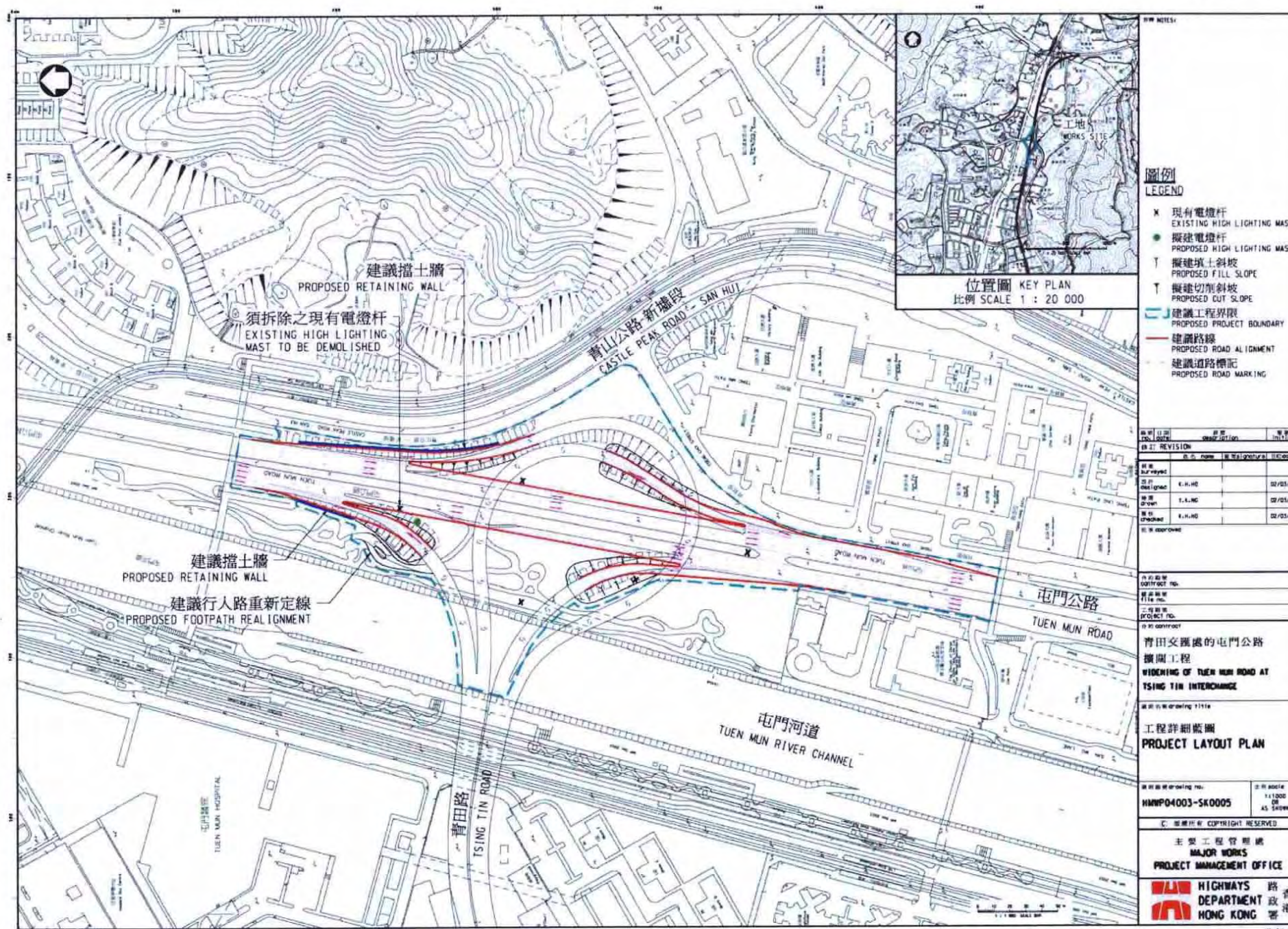
Scope

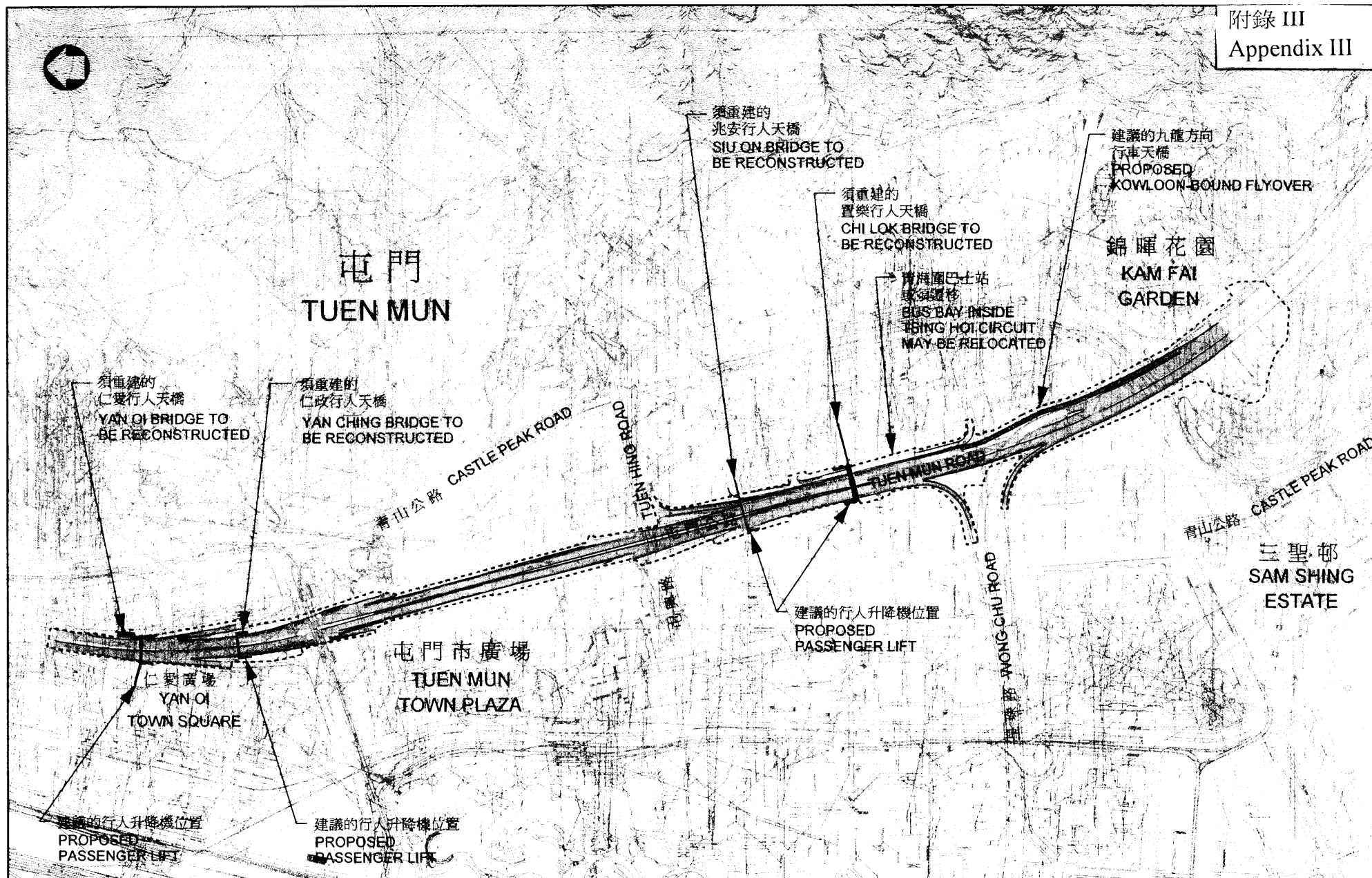
7. We will modify some of the existing directional signs in the Tuen Mun district and to provide additional directional signs within the town centre to encourage motorists in the Tuen Mun New Town to use parallel routes in lieu of TMR – TCS for their journeys to Tsuen Wan and Kowloon. The modification works are scheduled to be completed by the end of 2005.

Traffic Benefits

8. Ming Kum Road, Tsing Wun Road and Wong Chu Road are parallel routes to TMR – TCS. Diversion of traffic from TMR – TCS heading

Tsuen Wan and Kowloon to these parallel routes, which join TMR near Sam Shing Estate, will reduce traffic loading at TMR – TCS.





屯門市中心路段交通改善工程

TRAFFIC IMPROVEMENTS TO TUEN MUN ROAD TOWN CENTRE SECTION

新界西北地區的交通改善及應變措施

爲進一步完善新界西北的交通情況，我們一直積極研究和推展所需的基建項目和交通措施。各項新界西北的交通改善措施工作進度如下：

改善新界西北交通的措施	進度
(一) 元朗公路擴闊工程	元朗公路(藍地至十八鄉交匯處)的擴闊工程已於二零零六年三月完成。
(二) 青山公路擴闊工程	青山公路(荃灣第二區至小欖段)擴闊至雙線雙程行車的工程，現已二零零七年六月完成，並已開放通車。
(三) 新田交匯處改善工程	新田交匯處改善工程已於二零零七年五月底完成，並已開放通車。
(四) 加長屯門公路南行線近井財街的巴士停車處	屯門公路南行線近井財街巴士停車處已局部延長，有關部門現正籌劃再加長此巴士停車處。
(五) 改善屯喜路駛入屯門公路的合流車道	改善屯喜路駛入屯門公路的合流車道工程已經完成。
(六) 改裝屯門市中心現有的方向指示標誌及在市中心內增設新標誌	改裝屯門市中心現有的方向指示標誌及在市中心內增設新標誌的措施已經完成。
(七) 裝設交通管制及監察系統和可變信息顯示屏	爲配合深港西部通道及后海灣幹線的交通管理，我們安裝了一套包括閉路電視、可變信息顯示屏、行車綫管制燈號和可變速度限制標誌的交通管制及監察系統。

(八)	擴闊雙程雙線分隔車道的屯門公路青田交匯處至雙程三線分隔車道	我們於二零零六年十一月二十四日就三項改善屯門公路整體行車情況的擬議工程徵詢委員的意見。委員均贊成落實建議。視乎所需的法例規定和程序是否能順利進行，我們計劃在二零零八年展開擴闊青田交匯處的工程，並預計於二零零九年完成。在二零零八年展開擴闊市中心段的工程，並預計於二零一零年完成。同時，在二零零八年分階段展開改善快速公路段的建造工程，並預計於二零一二年或之前分階段完成。有關部門將繼續和區議會保持密切聯繫，以期順利推展各項工程。
(九)	擴闊雙程雙線分隔車道的仁愛廣場至皇珠路屯門公路至雙程三線分隔車道	
(十)	重建及改善屯門公路的快速公路段	
(十一)	博愛交匯處改善工程	我們已就博愛交匯處改善工程，向環境保護署申請環境影響評估研究概要，以進行環境影響評估研究。同時，路政署的顧問將於二零零七年七月底完成工程的交通影響評估及路線設計研究工作。視乎各項前期工作是否順利，我們計劃於二零零九年年初展開博愛交匯處改善工程，並預計於二零一零年年底完成。
(十二)	屏廈路和田廈路改善工程	預計有關工程可於二零一一年前完成。
(十三)	連接廈村交匯處和屏廈路的新道路	有關部門正積極研究連接廈村交匯處和后海灣幹線的新道路，並期望新道路能在二零一三年左右完成。

就長遠的交通需要而言，我們已就新界西北交通基建檢討的最新進展及建議的公路組合向委員會提交文件，並將於二零零七年七月九日的會議討論。

有關運輸署為深圳灣口岸開通後可能出現的特別交通情況所作出的安排

就深圳灣公路大橋上遇上交通事故或特殊道路情況的安排，上文第七項所述的大橋交通管制及監察系統，將通過行車綫管制燈號和可變速度限制標誌預早指示駕駛人士。

在連接大橋的后海灣幹線和附近的幹線道路上(包括元朗公路、青朗公路及粉嶺公路等)亦共設有十一個可變信息顯示屏。若深圳灣大橋、落馬洲口岸及其他附近的幹道(如屯門公路、元朗公路、新田公路、粉嶺公路、吐露港公路等)有交通事故，這些顯示屏可提示司機改道。

至於若屯門公路出現特殊交通狀況，有關部門亦會按實際情況採取相應的措施，包括利用設於深圳灣大橋、港深西部公路、新田公路近古洞、落馬州新深路、元朗公路、洪天路及朗天路的可變訊息顯示屏，向駕駛人士發放有關屯門公路的即時交通訊息，並視乎情況的需要，建議駕駛人士使用其他幹線公路前往市區。

此外，若陸路交通服務因屯門公路擠塞而受影響，運輸署會與有關的公共交通營辦商作出適當安排，加強鐵路和渡輪服務來往屯門至市區及離島等地，以疏導往來屯門及市區的乘客。