

立法會
Legislative Council

LC Paper No. PWSC69/07-08

(These minutes have been
seen by the Administration)

Ref : CB1/F/2/2

**Public Works Subcommittee of the Finance Committee
of the Legislative Council**

**Minutes of the 8th meeting
held in the Conference Room A of Legislative Council Building
on Wednesday, 20 February 2008, at 8:30 am**

Members present:

Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP (Chairman)
Hon Alan LEONG Kah-kit, SC (Deputy Chairman)
Hon Fred LI Wah-ming, JP
Hon Mrs Selina CHOW LIANG Shuk-yee, GBS, JP
Hon James TO Kun-sun
Hon CHAN Yuen-han, SBS, JP
Hon CHAN Kam-lam, SBS, JP
Hon SIN Chung-kai, SBS, JP
Hon Jasper TSANG Yok-sing, GBS, JP
Hon Howard YOUNG, SBS, JP
Hon LAU Kong-wah, JP
Hon Miriam LAU Kin-yee, GBS, JP
Hon Emily LAU Wai-hing, JP
Hon CHOY So-yuk, JP
Hon Andrew CHENG Kar-foo
Hon Timothy FOK Tsun-ting, GBS, JP
Hon Abraham SHEK Lai-him, JP
Hon Albert CHAN Wai-yip
Hon LEE Wing-tat
Hon LI Kwok-ying, MH, JP
Dr Hon KWOK Ka-ki
Hon CHEUNG Hok-ming, SBS, JP
Prof Hon Patrick LAU Sau-shing, SBS, JP
Hon TAM Heung-man

Members absent:

Hon Bernard CHAN, GBS, JP
Dr Hon Philip WONG Yu-hong, GBS
Hon LAU Wong-fat, GBM, GBS, JP
Hon Daniel LAM Wai-keung, SBS, JP

Members attending:

Hon CHEUNG Man-kwong
Hon Audrey EU Yuet-mee, SC, JP

Public officers attending:

Mr Joe C C WONG, JP	Deputy Secretary for Financial Services and the Treasury (Treasury) ³
Mr MAK Chai-kwong, JP	Permanent Secretary for Development (Works)
Ms Anissa WONG, JP	Permanent Secretary for the Environment
Mr Raymond YOUNG, JP	Permanent Secretary for Development (Planning and Lands)
Mr Davey CHUNG	Principal Assistant Secretary for Financial Services and the Treasury (Treasury) (Works)
Mr WONG Chee-keung, JP	Director of Drainage Services
Mr IP Wing-cheung	Chief Engineer (Project Management), Drainage Services Department
Mr LEE Tai-kwan	Chief Engineer (Sewerage Projects), Drainage Services Department
Dr M J BROOM	Assistant Director (Water Policy), Environmental Protection Department
Miss Rosanna LAW Shuk-pui	Principal Assistant Secretary (Transport) ² , Transport and Housing Bureau
Mr SIN Kwok-keung	Chief Engineer (Traffic Control), Transport Department
Ms Sharon HO Ho-shuen	Principal Assistant Secretary (Transport) ⁵ , Transport and Housing Bureau
Mr CHEUNG Hing-wan, JP	Director of Highways (Acting)
Mr CHOW Ying-shun, JP	Project Manager (Major Works), Highways Department
Mr TSE Chin-wan	Assistant Director (Environmental Assessment), Environmental Protection Department
Mr LEE Yan-ming	Chief Engineer (Traffic Engineering) (New Territories West), Transport Department

Admin To address Ms LAU's concern, the Administration agreed to provide the following information before the relevant FC meeting:

- (a) to illustrate how the capital cost was estimated by providing breakdown of the construction costs for the proposed drainage tunnel; the intakes and adits and the stilling basin and outfall structure; and
- (b) to provide a typical section of the proposed drainage tunnel and the connection adits.

4. Responding to Ms Emily LAU's enquiry about details of a section of the tunnel which would encroach onto an underground stratum of a private lot adjacent to Ching Cheung Road, DDS said that the private lot in question was the Cheung Sha Wan Cemetery. The owner had agreed to grant an easement to the Government at a nominal fee for the construction and maintenance of the proposed LCKDT within the private lot. The grant of an easement by the lot owner would obviate the need for acquiring the land by resumption.

5. The item was voted on and endorsed.

PWSC(2007-08)85 237DS Tai Po Tai Wo Road sewage pumping station and rising mains

6. The Chairman advised members that the Panel on Environmental Affairs (EA Panel) was consulted on this proposal and the next proposal, i.e. **PWSC(2007-08)86**, on 8 January 2008. Panel members requested the Administration to include in the submission to PWSC the outcome of consultation on the proposed pumping station near Tai Po Tau Shui Wai with the villagers and the efforts made to address their concerns. They also urged the Administration to expedite the related sewerage works for the unsewered villages in the vicinity of Tai Wo Road in Lam Tsuen areas. At members' request, the Administration provided a list of village sewerage projects under planning and construction, which were circulated to all Members vide LC Paper No. CB(1)810/07-08.

7. Responding to Ms Emily LAU's enquiry on the outcome of consultation on the proposed pumping station near Tai Po Tau Shui Wai, DDS advised that after the EA Panel meeting, the Administration had further consulted the Village Representatives and villagers of Tai Po Tau Shui Wai on 28 January 2008 and they reconfirmed their support to the construction of the proposed pumping station.

8. Noting from Enclosure 2 to the Administration's paper that the connection of the residential development at Hong Lok Yuen to the public sewerage system and the provision of sewerage to 27 villages in Lam Tsuen Valley would complete in end 2011 and end 2013 respectively, Ms Emily LAU considered that the progress of these related sewerage works was far from satisfactory. She urged the Administration to expedite the projects to meet the needs of residents in the areas and to bring about improvement to the water quality of Lam Tsuen River and Tolo

Harbour.

9. Mr CHEUNG Hok-ming was concerned about the interface between the construction of trunk sewers and sewage pumping facilities under the current proposal and the related sewerage works under planning to provide sewerage to the unsewered villages in Lam Tsuen Valley.

10. DDS said that the scope of the current proposal comprised, among others, construction of trunk sewers in Tai Po area, which form part of the public sewerage network for connection to village houses and other residential development. The proposed works under the project were planned for completion in December 2011. As the sewerage works to provide sewerage to 27 villages in Lam Tsuen Valley would be carried out by phases starting from end 2008 for completion in end 2013, these related works would have proper interface with the current proposal. He assured members that the Administration would endeavour to complete the works under the current proposal and the related sewerage projects for the unsewered villages and the residential development at Hong Lok Yuen as soon as practicable.

11. Mr Andrew CHENG noted that a provision of \$8 million had been made for the implementation of environmental mitigation measures under the proposed works. Pointing out that members of the Environment, Housing and Works Committee of the Tai Po District Council (TPDC) and local residents had expressed concern about the environmental impacts of the proposed works, Mr CHENG considered that the Administration should provide TPDC with details of the mitigation measures to be implemented and the cost breakdown in due course. In response, DDS assured members that the Administration had undertaken to brief TPDC on the details of the mitigation measures before work commencement.

Admin

12. Noting that trenchless excavation method would be employed to construct the sections of rising mains across major junctions along Ting Kok Road, Ms Miriam LAU enquired whether the method could be widely employed for all mainlaying works under the project to eliminate the need for road openings and minimize the traffic impact. She also enquired about the cost implications of her above suggestion. In response, DDS said that as Ting Kok Road was a busy road, trenchless excavation method would be employed at major junctions, such as at junctions of Ting Tai Road and Yuen Shin Road, which would account for 50% of the works along Ting Kok Road. It was necessary to balance the considerations of cost and traffic impact of the construction works given that trenchless excavation method would incur a much higher cost of about four times that of construction of drains through the traditional methods. The Administration had briefed TPDC on the preliminary mitigation measures to alleviate the traffic impact of the works and the latter considered the proposed measures acceptable. The Drainage Services Department (DSD) would monitor the traffic impact of the works in collaboration with the Transport Department (TD) and the Hong Kong Police Force.

13. The item was voted on and endorsed.

**PWSC(2007-08)86 340DS Port Shelter sewerage stage 3 – Mang
Kung Uk sewerage**

14. The Chairman advised members that the EA Panel was consulted on this proposal on 8 January 2008.

15. Mr Howard YOUNG stated support for the project to provide public sewerage to the unsewered villages in the area. Noting that one of the objectors had expressed strong views against the requirement for village house owners to bear the expense for sewer connection works within their private lots, Mr YOUNG was concerned about measures to ensure that necessary works would be carried out for connection of village houses to the public sewerage after completion of the proposed works.

16. DDS advised that in accordance with the well established policy, village house owners were required to carry out works within their private lots at their own expense for connection of their houses to the public sewers and to pay for the maintenance cost as well as the sewage charge. He said that as a matter of fact, the Administration had experienced certain difficulties in the implementation of previous sewerage projects where villagers were reluctant in carrying out the sewer connection works. For example, the connection works might involve branch sewers to be laid across the boundaries of private lots belonging to different owners. Moreover, some owners might encounter technical difficulties in the connection works. DSD would make every effort to provide assistance to the villagers concerned to resolve the land ownership and technical issues involved. In the event that feasible solutions could not be worked out, the Administration would have to accept that a small number of village houses had to continue with the treatment and disposal of sewage by privately owned facilities such as septic tank and soakaway systems.

17. Mr Howard YOUNG was concerned that if some village houses would continue to use the existing privately owned facilities for treatment and disposal of sewage, the problem of pollution to the watercourses from these unsewered areas might not be adequately addressed even after completion of the sewerage works. Mr YOUNG sought information on the connection rates of village houses in previous sewerage projects. Mr Albert CHAN expressed similar concern and opined that it would be a waste of public resources if the public sewerage projects could not effectively alleviate the problem of water pollution.

18. In response, DDS advised that the Administration could take action against illegal discharge of sewage from village houses pursuant to the Water Pollution Control Ordinance (Cap. 358). Where a serious problem of water pollution arising from sewage discharged from unsewered village houses was identified, the Administration might consider measures such as resumption of the private lots concerned. DDS assured members that as revealed from practical experience of previous sewerage projects, the majority of the village houses were connected to the public sewerage, for example, connection rate of 88% was recorded for a sewerage project in Sai Kung.

19. Ms Emily LAU expressed appreciation of the efforts made by the Administration in the public consultation on the proposed sewerage works. In this connection, Ms LAU noted that to address the concern of objectors about the location of the proposed sewage pumping station in Mang Kung Uk under the original proposed scheme, the Administration had formulated an alternative sewerage scheme which involved the construction of an additional sewer at the hillside for re-routing the sewage flow. She enquired about the cost implication of this alternative scheme.

20. In reply, DDS advised that the construction of a sewage pumping station under the original proposed sewerage scheme was objected by local villagers on grounds of its proximity to the ancestral hall. After lengthy deliberations, the Administration had proposed to revise the design of the sewerage scheme by re-routing the sewage flow by the construction of an additional 500 metre long sewer at the hillside instead of constructing a sewage pumping station. Pointing out that this alternative scheme was by no means ideal bearing in mind the possible difficulties in and higher cost of maintenance of a sewer at the hillside, DDS advised that the capital cost for the project would be reduced as the proposed sewage pumping station under the original scheme would not be pursued. Local villagers were informed of the possible maintenance difficulties of the hillside sewer. He assured members that the Administration would monitor closely the functioning of the sewer to ensure smooth operation of the sewerage system.

21. Responding to Ms Emily LAU's further enquiry about the basis for calculation of the annual recurrent expenditure arising from the proposed works, DDS said that the amount of about \$0.5 million was estimated based on the standard formula adopted for calculation of recurrent cost for projects under the purview of DSD. Shortfalls in the recurrent expenditure for certain projects, if any, would be met by DSD's own provision. Ms LAU said that the Administration should include necessary information, such as higher recurrent cost, in future submissions to PWSC.

22. Noting that the proposed Mang Kuk Uk sewerage under **340DS** was part of the Port Shelter sewerage stage 3 works, Ms Emily LAU expressed concern about the long implementation timeframe for the remaining stages 2 and 3 works which covered approximately 30 villages at various locations in the Port Shelter area and were scheduled for completion only in 2014. In reply, DDS advised that the Administration was making continuous efforts for the implementation of a series of sewerage improvement works in the Port Shelter area in stages to provide public sewerage to the unserved villages in the area. The implementation of stages 2 and 3 works in the Port Shelter area was in progress and was expected to be completed before 2015. Noting Ms Emily LAU's request for expeditious delivery of the sewerage projects to meet public expectations for improvements in water quality, DDS undertook to speed up the project implementation as far as practicable. Responding to Ms LAU's further concern about the target completion date for the expansion and upgrading of the Sai Kung Sewage Treatment Works, DSD advised that the expansion and upgrading works were planned to cope with the increased sewage flow from existing and planned developments in the area, the

need of which was estimated to arise in about 2014.

23. Pointing out that Mang Kung Uk was an historical village, Prof Patrick LAU queried why the Administration had not mentioned this fact in its paper under the subheading "heritage implications". He sought information on the assessment on the historical values of Mang Kung Uk and the possible impact of the proposed works on the historical village. In reply, DDS said that given the small scale of works at Mang Kung Uk with laying of sewers ranging from 225 mm to 300 mm in diameter, impact on the Mang Kung Uk village was expected to be minimal. He assured members that the Administration would repave the path with materials compatible with the village setting.

24. Noting that \$50,000 was provided for the "Tun Fu" ceremonial fees, Mr Albert CHAN sought information on the breakdown of this expenditure item. He was concerned that a large part of the fees might turn out to be paid to influential local figures instead of spent on ceremonial stuff. Mr CHAN requested to put on record that the Administration should monitor closely the expenditure on "Tun Fu" ceremony to ensure proper use of public money. Mr CHAN also expressed concern about the ex-gratia compensation rate for land resumption. Noting that the four ex-gratia compensation zones for land resumption in the New Territories had been approved by the Executive Council in 1985 and 1996, Mr CHAN considered that the Administration should review the zone boundaries as well as the compensation rate.

25. DDS said that "Tun Fu" ceremony was the custom of the indigenous villagers in the New Territories, the amount of fees was estimated in accordance with the standard rate adopted by the Lands Department. He took note of Mr Albert CHAN's concern and agreed to liaise with the Lands Department on the expenditure of the ceremonial fees. At Mr Albert CHAN's request, the Administration agreed to provide detailed information on the "Tun Fu" ceremonial fees, including a breakdown, the basis of calculating the estimated cost and the circumstances under which such fees would be paid before the relevant FC meeting. As to the review of ex-gratia compensation zone boundaries and compensation rate, DDS said that the subject was beyond the scope of this project proposal and had to be examined further at the appropriate forum.

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26. The item was voted on and endorsed.

Head 706 – Highways

PWSC(2007-08)87 25TC Replacement of conventional traffic signals with light emitting diode (LED) traffic signals in Hong Kong

27. The Chairman advised members that the Panel on Transport was consulted on this proposal on 18 December 2007. Panel members noted that during the replacement works period, police officers would be deployed for traffic

control to ensure the safety of road users. Panel members supported the proposed project.

Performance of the light emitting diode traffic signals

28. Dr KWOK Ka-ki stated support for the project. Noting that the lifetime of light emitting diode (LED) traffic signals was generally over ten years, he queried why the Administration had only proposed to impose a mandatory five-year defects liability period (DLP) for the LED traffic signals under the replacement project. He doubted whether the Administration could negotiate with the supplier for a longer DLP.

29. The Chief Engineer (Traffic Control), Transport Department (CE(TC), TD) said that a five-year DLP during which the contractor was required to replace all defective LED modules would be imposed to safeguard government interest in respect of the high capital investment. The five-year DLP safeguarded the Government from the additional cost for replacement of the LED signals should there be variations in the quality of this new technology product. After the expiry of DLP, the contractor would provide maintenance for the LED signals instead of arrange for replacement. In view of the longer lifetime of LED signals, the maintenance required was expected to be minimal. He nevertheless pointed out that suppliers would add the cost in their tender-bidding prices if a longer DLP was imposed. In determining the DLP, the Administration would have to strike a balance between safeguarding government interest for the high capital investment and the cost for the supply contract of LED signals.

30. Ms Emily LAU enquired about the percentage of LED signals expected to be replaced during the five-year DLP. In response, CE(TC), TD said that given the limited local experience in the use of LED signals, it was difficult for the Administration to provide an estimate on the percentage of replacement at the present stage. He nevertheless pointed out that overseas experience had revealed low percentage of defects in LED signals during DLP. The Principal Assistant Secretary (Transport)2, Transport and Housing Bureau (PAS(T)2, THB) added that LED signals had been gradually introduced at about 150 junctions under a pilot scheme since 2004. These LED signals had been in smooth operation and were well received by the public. The reliability of LED signals was proven in the pilot scheme and therefore the percentage of defective LED signals under the proposed works was expected to be low.

31. Given the reliability of the LED signals, Ms Emily LAU was of the view that the contractor would probably be required to replace a small number of LED signals during a five-year DLP. As such, Ms LAU opined that extension of DLP beyond five years should not incur much additional cost on the part of the contractor. She called on the Administration to make reference to overseas practices in the length of DLP and consider further the merits of imposing a longer DLP. In reply, PAS(T)2, THB advised that the service provided under DLP was different from those under annual maintenance in that the contractor had to replace all defective LED signals with new ones during DLP. While it was possible to

impose a longer DLP, this would inevitably result in a higher tender price for the proposed works.

32. Mr Fred LI enquired whether the Administration would take the opportunity of the replacement project to enlarge the size of the traffic lights so as to increase the visibility of the lights to road users. Mr LI was concerned about the visibility of LED traffic signals under daylight compared with conventional traffic signals. He also expressed concern about the unstable performance of conventional traffic signals during inclement weather and enquired whether the replacement with LED traffic signals would make any improvement in this regard.

33. CE(TC), TD advised that the traffic lights in the territory were designed with two different sizes, i.e. with diameters of 200 mm and 300 mm. Traffic lights for pedestrian crossings and for displaying directions would be larger while those displaying the colour signal only would be smaller. The scope of the proposed project would only cover replacement of the incandescent lamp bulbs of the traffic signals with LED signals and would not cover any alteration works for the casing of the traffic lights. Pointing out that the visibility problem owing to constraints of viewing angle and sharpness of LED traffic signal under daylight during the initial introduction of the new product had been overcome with the improvements in the LED technology, he assured members that the performance of LED traffic signals would be comparable to that of the conventional traffic signals in terms of visibility. CE(TC), TD further advised that the disruption in service of traffic lights during inclement weather were not a result of performance problems of the incandescent lamp bulbs but the disruption of the operation of the traffic signal controllers under adverse weather conditions such as lightning.

Financial implications

34. As to Ms Emily LAU's concern about details of the anticipated annual savings in energy consumption and maintenance cost to be achieved through the replacement works, CE(TC), TD advised that the estimated amount of \$7.6 million covered mainly savings in electricity, with a smaller amount being savings on the maintenance costs. PAS(T)2, THB added that while savings would be achieved in annual maintenance of the LED signals, the maintenance provision for TD was made on the basis of the maintenance requirements for various traffic facilities across the territory and the Administration did not have detailed breakdown on the maintenance costs for traffic lights at hand. At Ms LAU's request, the Administration agreed to provide the annual savings in energy consumption and/or maintenance cost achieved from the pilot scheme under which LED signals had been introduced since 2004; and the anticipated annual savings in this regard after the completion of each of the three phases of the proposed replacement project.

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35. Noting the downward trend for the prices of electronics products including LED signals, Dr KWOK Ka-ki considered that the Administration should award the contracts by phases in order to minimize the capital cost for the proposed replacement works. He was also concerned whether there was competition in the supply of LED traffic signals so that contracts for different

phases might be awarded to different suppliers.

36. In response, PAS(T)2, THB confirmed that the proposed replacement project was scheduled to be undertaken in three phases to benefit from the gradual improvement in LED technology and reliability as well as the downward trend of the prices of electronic products including LED. While there were a few LED suppliers in the market, PAS(T)2, THB advised that more LED signal products were expected to be developed/improved to meet the TD's requirements in the next few years, rendering the phases two and three tender prices more competitive. The phased implementation of the replacement project would also facilitate traffic management during the replacement works period and minimize the impact on traffic. Replacement works would be undertaken at road junctions on Hong Kong Island, in Kowloon and in the New Territories under phases 1 to 3 respectively, covering works at an increasing number of road junctions when progressing to a later phase. The capital cost incurred would therefore increase from phase 1 to 3 as a result of the larger number of road junctions at which replacement works would be undertaken. However, the unit cost of LED traffic light was expected to decrease gradually from \$1,350 in phase 1 to \$1,200 in phase 3.

Admin 37. Responding to Mr Howard YOUNG's enquiry on the unit cost for replacement works at each road junction under different phases of the project, PAS(T)2, THB said that while the unit cost for LED traffic lights was expected to be reduced in the next few years, the unit cost for each road junction would vary according to the number and design of the traffic lights at the junction. Ms Miriam LAU expressed similar concern and requested the Administration to provide the number of LED modules to be installed under each of the three phases of the replacement project before the relevant FC meeting.

Locations of road signs

38. Mr Fred LI urged TD to liaise with the Highways Department (HyD) and take the opportunity of the replacement works to review the locations of existing road signs, such as whether any of these signs had obstructed the sightline of motorists. This view was shared by Ms Emily LAU. In response, PAS(T)2, THB advised that the review of road signs would not be covered in the scope of the current proposal. She nevertheless took note of members' view and agreed to follow up with HyD in this regard. The Permanent Secretary for Development (Works) (PS(W), DEVB) added that improvements had been made to road signs and traffic lights following the review conducted by HyD a few years ago. For example, improvement works were carried out to combine different road signs at the same road junction on a single pole; to identify suitable locations for road sign so as to prevent obstruction of motorists' sightline; and for the installation of overhanging traffic lights at major junctions.

Traffic impact

39. Noting that traffic lights would have to be switched off whilst the replacement works were in progress, Ms Miriam LAU expressed grave concern

about the traffic impact of the proposed works. She enquired about the measures to minimize the traffic impact, such as carrying out the replacement works only during non-rush hours. In response, CE(TC), TD said that the traffic lights would only be switched off for a short duration of less than 30 minutes during the modification of traffic signal controllers. Police officers would be deployed for traffic management at the road junction in question during the period and such works would only be carried out during non-rush hours.

40. The item was voted on and endorsed. Ms Emily LAU requested that this item be voted on separately at the relevant FC meeting.

PWSC(2007-08)88 746TH Reconstruction and improvement of Tuen Mun Road

41. The Chairman advised members that the Panel on Transport was consulted on this proposal on 28 January 2008. Panel members supported the proposed project and urged the Administration to improve Tuen Mun Road (TMR) to meet the standard of modern expressways. Panel members requested the Administration to formulate appropriate measures to minimize the traffic impact of the project. Supplementary information provided by the Administration in response to the issues raised by Panel members was in Enclosure 3 to the Administration's paper.

Tree proposal

42. Pointing out that the current proposal and the next item on the agenda, i.e. **PWSC(2007-08)89** both covered improvement works on TMR, Ms Audrey EU queried why the latter was a designated project under the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) but the current proposal had not been taken forward in the same manner. Noting that under **PWSC(2007-08)89**, 503 of the 550 trees within the project boundary would be preserved, Ms EU was gravely concerned about the removal of some 5 200 trees under the proposed works, of which only 10 would be replanted within the project site. She wondered whether the great difference in the scale of tree felling between the two projects on TMR was a result of their different status under the EIA Ordinance. She also enquired about the reasons for felling such a large number of trees under the current proposal and the detailed information on these trees. Miss CHOY So-yuk also expressed concern about the number of trees to be felled.

43. The Director of Highways (Acting) (D of Hy (Acting)) advised that the current proposal was not a designated project under the EIA Ordinance as the scope of works mainly covered improvement to the design of an existing road, comprising the widening of traffic lanes and other road improvement works but not increasing the number of traffic lanes as in the case of **PWSC(2007-08)89**. In order to make way for the construction of hard shoulders on both sides of TMR and for improvement of the traffic lanes, it was necessary to cut or fill some of the slopes and the trees on the slopes would inevitably be affected. The

Administration had commissioned landscape architects to study the feasibility of replanting these trees within the project boundary. Nevertheless, taking into consideration the low survival rate of these trees after replanting and that they were ordinary non-indigenous species of low ecological importance, the Administration had proposed to remove about 5 190 trees and incorporate planting proposals as part of the project to make up the loss.

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44. Ms Audrey EU remained concerned about the scale of tree felling under the project. Ms EU was of the view that the planting proposals under the project might not adequately mitigate the environmental impact of the large scale tree felling as most of the trees to be planted would be tree seedlings. She therefore urged the Administration to examine alternatives to reduce the number of trees to be removed. Ms EU also doubted whether there were loopholes in the existing EIA Ordinance, giving rise to inadequate safeguard for proper assessment of the environmental implications of public works projects and possible inconsistency in the standards applied to projects proposed by the Government and by private developers. She suggested that the Administration should review the legislation in this regard. At the request of Ms EU and Miss CHOY So-yuk, the Administration agreed to provide detailed information on the 5 190 trees to be felled under the proposed works, including the location and species. The Administration was also requested to explain why the trees had to be felled.

45. D of Hy (Acting) advised that apart from tree seedlings, larger trees would be planted under the planting proposals. Suitable tree species in terms of growth rate, ecological value and visual value would be selected for planting under the project. Hence, after some years of growth, the greening along TMR would be improved. The Permanent Secretary for the Environment added that the categories of designated projects subject to statutory environmental impact assessment were set out in the EIA Ordinance. The scope and nature of the current proposed project did not fall into the categories of designated projects and as such it was not required to comply with the statutory process nor was an environmental permit required.

Noise mitigation measures

46. Mr CHEUNG Hok-ming stated support for the project. He opined that the proposed works to improve TMR scheduled for completion in 2014 would enhance the capacity of TMR timely to cope with the increased traffic from the Shenzhen Bay Port. Referring to residents' complaints about the effectiveness of the existing noise barriers along TMR in reducing traffic noise, Mr CHEUNG enquired about the design criteria for noise barriers under the project and whether the residents had been informed of such criteria. In reply, D of Hy (Acting) said that different designs of the noise barriers would be considered having regard to a number of relevant factors, such as the noise levels, the heights of the noise sensitive buildings and their distances from the road. The neighbouring residents had been consulted on the proposed noise mitigation measures under the project.

47. Mrs Selina CHOW noted with concern that of the 5 200 dwellings adjacent to TMR which were exposed to excessive traffic noise of up to 84 dB(A), only 4 100 dwellings would benefit from the noise barriers and semi-enclosures. She enquired about other measures to mitigate the exposure to excessive traffic noise for the remaining 1 100 dwellings.

48. In response, D of Hy (Acting) said that the noise barriers and semi-enclosures under the proposed works would lower the existing traffic noise levels on the affected sensitive receivers by 1 to 21 dB(A) and benefit the majority of the dwellings adjacent to TMR, i.e. about 4 100 out of the 5 200 dwellings. The traffic noise levels would be lowered by around 6 dB(A) on average for these 4 100 dwellings. The noise level of the remaining 1 100 dwellings which were presently exposed to a relatively lower level of traffic noise would also be reduced by less than 1 dB(A).

49. Mrs Selina CHOW remained concerned about the 1 100 dwellings which could hardly benefit from the proposed noise mitigation measures and called on the Administration to explore other measures to alleviate the noise pollution problem. Mrs CHOW was also concerned about the visual impact of the noise barriers on the surrounding environment and their effectiveness in noise mitigation. She urged the Administration to explore alternative noise mitigation in this regard, such as the planting of trees.

50. The Assistant Director (Environmental Assessment), Environmental Protection Department AD(EA), EPD said that it was the Government's policy that direct engineering solutions by way of retrofitting of barriers and enclosures, and resurfacing with low noise material, would be implemented where practicable on existing roads where the noise level exceeded the limit of 70dB(A). In line with the above policy and in response to concerns of neighbouring residents, the Administration had worked out the proposed retrofitting works at six locations along TMR. As to the planting of trees for noise mitigation, AD(EA), EPD advised that trees could not effectively reduce traffic noise. By way of illustration, planting of trees to form a barrier measuring 10 metres in depth could only lower the traffic noise by about 1dB(A). He assured members that the Administration attached importance to the aesthetic design of the proposed noise barriers and had engaged a group of experts to give advice on the design to ensure that the final design would be compatible with the surrounding environment. D of Hy (Acting) added that the Administration had taken on board the majority of the public views on the retrofitting of noise barriers, except for safety reason at one location where the installation of noise barrier would obstruct the sightline of motorists. Responding to Mrs Selina CHOW's further enquiry on the use of low noise materials on TMR, D of Hy (Acting) advised that low noise materials had been used for surfacing all expressways with speed limit over 70 km/hour, including TMR.

51. Mrs Selina CHOW queried why the Administration had all along refused to provide double glazed windows and air-conditioning for residential developments exposed to excessive traffic noise while providing resource for

Clerk implementing such noise mitigation measures for school projects. She suggested that the subject of mitigation of traffic noise on existing roads should be referred to the Panel on Environmental Affairs.

Road safety and traffic impact

52. Referring to severe disruptions in traffic caused by rocks felling from previous slope works along TMR, Ms Miriam LAU was concerned about the precautions taken to ensure road safety during the slope cutting and filling works under the current project. In reply, D of Hy (Acting) said that the Administration had made reference to the experience of previous slope works and would implement appropriate precautionary measures to ensure the safety of slope works as well as road safety under the project.

53. Ms Miriam LAU expressed concern about the traffic impact of the proposed works and enquired about the temporary traffic measures to be adopted during the construction stage of the project, notably whether construction works would be carried out during non-rush hours at night. Mrs Selina CHOW expressed similar view and sought the Administration's undertaking to minimize the traffic impact of the proposed works on TMR.

54. In response, D of Hy (Acting) advised that the contractor would be required, under clear provisions of the contract, to maintain the existing number and width of the traffic lanes during rush hours, through employing measures such as movable central divider and adjustment of the traffic lanes during slope filling or cutting works. D of Hy (Acting) further advised that the contractor would also be required to arrange standby towing vehicles at strategic locations to facilitate timely removal of broken-down vehicles so that normal traffic could be resumed as quickly as possible. This arrangement was in fact an improvement as currently broken-down vehicles would cause serious congestion to TMR given that the road was not provided with any hard shoulder at present.

55. Ms Miriam LAU asked whether the Administration could undertake to call the construction works to a stop should the contractor failed to maintain the number and width of the traffic lanes. In reply, D of Hy (Acting) advised that while the Administration would require the contractor to maintain the existing number and width of the traffic lanes during rush hours, it could not rule out the possibility of implementing contingency measures to reduce the number of lanes or the speed limit under exceptional and unforeseeable circumstances. He assured members that contingency measures would only be implemented after consultation with Tuen Mun District Council (TMDC). Responding to Ms LAU's enquiry on whether blasting would be used for the proposed slope works, D of Hy (Acting) replied in the negative and advised that this would be stipulated in the contract.

56. Mrs Selina CHOW asked about the progress of TMDC's request on the provision of a bus-bus interchange (BBI) at Siu Lam. In reply, D of Hy (Acting) said that the Administration was looking into the case of providing a BBI. Where

possible, the proposed BBI would commence operation before the completion of the current project.

Items to be deferred

57. At about 10:21 am, the Chairman sought members' views on the arrangements for consideration of the remaining items on the agenda. Pointing out that the Council meeting would start at 11:00 am and there were still a number of members waiting for their turn to raise questions on the current proposal, the Chairman suggested that the remaining five items on the agenda be deferred. At the request of Mr CHEUNG Man-kwong and having regard to the non-controversial nature of the projects, members agreed to advance the two school projects on the agenda, i.e. items **PWSC(2007-08)83** and **PWSC(2007-08)81** for consideration. To facilitate members' consideration of the items at the relevant FC meeting, members were invited to provide their questions on these two items to the Secretariat. Questions received from members, if any, would be forwarded to the Administration for written response before the relevant FC meeting. Members also agreed that the remaining three items on the agenda (i.e. **PWSC(2007-08)89**, **78** and **82**) be deferred and an additional meeting be arranged for consideration of the deferred items.

(Post-meeting note: The additional meeting was scheduled for 26 March 2008 at 4:30 pm. Notice of meeting was issued to members vide LC Paper No. PWSC66/07-08 on 22 February 2008.)

Head 703 – Buildings

**PWSC(2007-08)83 346EP Extension to Sheng Kung Hui Mung Yan
Primary School at King Fung Path, Tuen
Mun**

58. The item was voted on and endorsed. Ms Emily LAU requested that this item be voted on separately at the relevant FC meeting.

Head 708 – Capital Subventions and Major Systems and Equipment

**PWSC(2007-08)81 53EF 1 500-place student hostel, The Chinese
University of Hong Kong**

59. The item was voted on and endorsed. Ms Emily LAU requested that this item be voted on separately at the relevant FC meeting.

PWSC(2007-08)88 746TH Reconstruction and improvement of Tuen Mun Road

Tree proposal

60. While supporting the proposed project to upgrade TMR to the current expressway standards, Ms Emily LAU shared the concern of other members on the removal of more than 5 000 trees. She called on the Administration to consider reducing the number of trees to be felled and asked whether the Administration would set up a designated committee to evaluate and approve the removal of trees under public works projects.

61. In reply, PS(W), DEVB advised that as the proposed works involved the cutting back of existing slopes to form space for the road improvement, the trees on the affected slope would have to be removed. He assured members that the Administration would avoid excessive tree felling under public works projects. The new trees planted under the planting proposals were of higher visual and ecological values compared with the existing ones, and would ultimately beautify the surrounding environment along TMR.

Noise mitigation measures

62. Ms Emily LAU was of the view that noise barriers were undesirable noise mitigation measures given their unsightly appearance and the high costs for installation, which amounted to over \$500 million for the current project. She called on the Administration to improve the physical appearance of noise barriers. Ms LAU also expressed concern about the effectiveness of the proposed noise barriers and semi-enclosures in lowering the existing traffic noise levels on the 5 200 dwellings adjacent to TMR and considered that the Administration should provide double-glazed windows and air-conditioning for the remaining dwellings which would still be exposed to excessive traffic noise after completion of the proposed works.

63. PS(W), DEVB recapped that the Administration promulgated a policy in 2000 to address the noise impact of existing roads on neighbouring residents. Under this policy, direct engineering solutions by way of retrofitting of barriers and enclosures, and resurfacing with low noise material, would be implemented where practicable on existing roads where the noise level exceeded the limit of 70 dB(A). In line with the above policy, noise barriers and enclosures would be installed under the project, where technically feasible, to lower the traffic noise levels affecting neighbouring residents of TMR. At Ms LAU's request, the Administration agreed to provide the number of dwellings benefiting from the proposed works with traffic noise levels lowered to within 70dB(A) and the number of dwellings which would still be exposed to traffic noise exceeding 70dB(A) after the completion of the proposed retrofitting works, with breakdown by the number of dwellings exposed to different levels of traffic noise.

64. Ms CHOY So-yuk was also concerned about the high cost for installation of the proposed noise barriers and enquired whether this was attributable to the costs of construction materials or construction works. In response, PS(W), DEVB advised that higher total cost for installation of the proposed noise barriers was incurred as a result of the large size of the barriers, some of which measured up to 9 m in height. Moreover, there was an upward trend of the costs for construction materials in recent months, including steel.

65. Mr Albert CHAN pointed out that the scope of the current project was far from satisfactory as improvements and widening works would only be carried out at selected sections of TMR but not along the whole length of the expressway. Nevertheless, Mr CHAN said that he would still give his support to the project in principle bearing in mind that the improvement works had been long overdue and residents of Tuen Mun had been suffering from the inconvenience caused by the substandard trunk road. On the proposed noise barriers under the project, Mr CHAN appreciated the Administration's effort in modifying the project design to take forward residents' request for installing more noise barriers but considered that the aesthetic design of the noise barriers should be improved. He urged the Administration to improve the physical appearance of noise barriers, such as identifying suitable and lighter materials available in the market so that the noise barriers would no longer be retrofitted in the form of colossal concrete structures.

Road maintenance

66. Noting that the improvement works to TMR were proposed as most at-grade sections of TMR had already reached the end of their service life, Dr KWOK Ka-ki sought information on the normal service life of expressways. In reply, D of Hy (Acting) said that the design service life of asphalt at-grade road was about 20 years but the actual life span would hinge on a number of factors, such as the traffic volume and types of vehicles using the road. As TMR had been built in the 1970s and in use for over 25 years, the at-grade sections of TMR had already reached the end of their service life, resulting in a disproportionately high frequency of lane closure for road resurfacing works which had caused traffic disruptions and incurred higher maintenance cost.

67. Responding to Dr KWOK Ka-ki's enquiry on the annual maintenance cost for TMR at present, D of Hy (Acting) advised that the annual cost was over \$20 million and was expected to increase without the implementation of the proposed improvement works. On the cost savings for road maintenance achieved through the proposed works, D of Hy (Acting) said that no maintenance would be required for the first four years after the completion of the proposed works. Some resurfacing works might have to be undertaken from the fifth year onwards at an estimated cost of around \$20 million.

68. The item was voted on and endorsed. Ms Emily LAU requested that this item be voted on separately at the relevant FC meeting.

69. The meeting ended at 10:45 am.

Council Business Division 1
Legislative Council Secretariat
9 April 2008