

立法會
Legislative Council

LC Paper No. CB(1)466/13-14
(These minutes have been seen
by the Administration)

Ref : CB1/PL/TP/1

Panel on Transport

**Minutes of meeting held on
Friday, 21 June 2013, at 10:45 am
in Conference Room 3 of the Legislative Council Complex**

Members present : Hon CHAN Kam-lam, SBS, JP (Chairman)
Hon LEE Cheuk-yan
Hon James TO Kun-sun
Hon WONG Kwok-hing, MH
Hon Jeffrey LAM Kin-fung, GBS, JP
Hon CHAN Hak-kan, JP
Hon LEUNG Kwok-hung
Hon Albert CHAN Wai-yip
Hon NG Leung-sing, SBS, JP
Hon Frankie YICK Chi-ming
Hon WU Chi-wai, MH
Hon CHAN Han-pan
Dr Hon KWOK Ka-ki
Hon TANG Ka-piu
Ir Dr Hon LO Wai-kwok, BBS, MH, JP
Hon CHUNG Kwok-pan
Hon Christopher CHUNG Shu-kun, BBS, MH, JP
Hon Tony TSE Wai-chuen

Members absent : Hon Gary FAN Kwok-wai (Deputy Chairman)
Hon Ronny TONG Ka-wah, SC
Hon Mrs Regina IP LAU Suk-yee, GBS, JP
Hon Michael TIEN Puk-sun, BBS, JP
Dr Hon Elizabeth QUAT, JP

Hon POON Siu-ping, BBS, MH

**Public Officers
attending : Agenda item IV**

Mr YAU Shing-mu
Under Secretary for Transport and Housing

Mr Andy CHAN
Deputy Secretary for Transport and Housing
(Transport)2

Miss Carrie CHANG
Principal Assistant Secretary for Transport and
Housing (Transport)1

Mr Josiah TAU
Principal Assistant Secretary for Transport and
Housing (Transport) Financial Review

Mr Albert SU
Assistant Commissioner/Management &
Paratransit
Transport Department

Mr Dannis LEUNG
Chief Transport Officer/Planning/Taxi
Transport Department

Agenda item V

Mr YAU Shing-mu
Under Secretary for Transport and Housing

Mr Edward TO
Principal Assistant Secretary for Transport and
Housing (Transport) 5

Mr CHUI Wing-wah
Assistant Director/Technical
Highways Department

Mr Tony HO
Chief Highway Engineer/Research &
Development (Acting)
Highways Department

Clerk in attendance : Ms Sophie LAU
Chief Council Secretary (1)2

Staff in attendance : Ms Macy NG
Senior Council Secretary (1)2

Ms Emily LIU
Legislative Assistant (1)2

Action

I Confirmation of minutes of meeting

(LC Paper No. CB(1)1307/12-13 - Minutes of meeting on
22 February 2013)

The minutes of the meeting held on 22 February 2013 were confirmed.

II Information papers issued since last meeting

(LC Paper No. CB(1)1109/12-13(01) - Letter from Hon TANG
Ka-piu requesting the
Panel to discuss the matter
on erroneous deduction of
Octopus Card value

LC Paper No. CB(1)1245/12-13(02) - Administration's response
to a submission from a
member of the public on
the problem of lost bus
trips

LC Paper No. CB(1)1245/12-13(01) - Administration's response
to a submission from
members of the public on
the air quality of franchised
bus compartments

LC Paper No. CB(1)1253/12-13(01) - Information paper on
adjustment to MTR fares in

LC CB(1)1266/12-13(01) and (02)	Papers	Nos. -	2013
			Letter from Dr Hon Fernando CHEUNG Chiu-hung and a submission from 清河交通關注組 requesting the Panel to discuss the bus route rationalization plan in the North District of the New Territories
LC CB(1)1270/12-13(01) and (02)	Papers	Nos. -	Letter from Hon TANG Ka-piu on the new monthly pass scheme to be introduced by the MTR Corporation Limited and the Administration's response
LC CB(1)1349/12-13(01) and (02)	Papers	Nos. -	Letter from Hon WONG Kwok-hing on the safety of and the need to stipulate modification guidelines for electric wheelchair and the Administration's response)

2. Members noted the above papers issued since the last meeting.

III Items for discussion at the next meeting scheduled for 19 July 2013

(LC Paper No. CB(1)1298/12-13(01) - List of outstanding items for discussion

LC Paper No. CB(1)1298/12-13(02) - List of follow-up actions)

3. Members agreed to discuss the following items at the next regular meeting on 19 July 2013 –

- (a) Private Driving Instructor ("PDI")'s Licences; and
- (b) Street lighting in Hong Kong.

(Post-meeting note: The item on "Street lighting in Hong Kong" was subsequently replaced by "The operating right of the peak

tramway" vide LC Paper No. CB(1)1512/12-13 issued to members on 12 July 2013.)

4. Mr LEE Cheuk-yan proposed and members agreed that deputations should be invited to give views on the agenda item on PDI's Licences. The Chairman said that he would liaise with the Administration to see whether the relevant paper would be made available earlier so that deputations could have more time to study the paper and to prepare their presentations.

IV Taxi fare adjustment applications

(LC Paper No. CB(1)1298/12-13(03) - Administration's paper on taxi fare increase applications

LC Paper No. CB(1)1298/12-13(04) - Paper on taxi fare adjustments prepared by the Legislative Council Secretariat (background brief))

5. Under Secretary for Transport and Housing ("USTH") briefed members on the fare increase applications made by the urban, the New Territories ("NT") and Lantau taxi trades for increasing their respective flagfall charges for the first 2 km travelled or any part thereof by \$2 to \$3 and the first stage incremental charges by \$0.1 per jump. He said that the NT taxi trade also applied for increasing the additional fares for every article of baggage carried, every animal or bird carried, and every hiring arranged through telephone booking by \$1 each (i.e. from \$4 to \$5). If the trades' proposals were approved, the flagfall charges would become \$22, \$19 and \$18 for the urban, NT and Lantau taxis respectively.

General views

6. While noting that the applications for taxi fare increase were made on the ground that the real income of taxi drivers and owners was lowered than that in the second half of 2011 after the last fare increase in July that year, Mr WONG Kwok-hing, Mr LEE Cheuk-yan, Dr KWOK Ka-ki and Mr Albert CHAN expressed concern that the taxi fare increase might trigger taxi rental increase by taxi owners. As a result, any increase in income that might be derived from the fare adjustments would not be completely for the benefit of the taxi drivers. Furthermore, with an increased taxi fare, patronage might possibly decrease. Mr WONG Kwok-hing and Mr Albert CHAN urged taxi owners to freeze taxi rental for at least six months if taxi

fares were increased. Mr WONG indicated that if the matter on taxi fare increase applications would be put to vote at the meeting, members affiliated to The Hong Kong Federation of Trade Unions would abstain. Mr LEE Cheuk-yan indicated that if the Administration could guarantee that the income of taxi drivers would not drop after the proposed fare increase, he would support the fare increase applications. Mr WU Chi-wai considered that the Administration should make available information on the breakdown of the operating cost of taxi owners/operators to facilitate members' consideration of the applications.

7. In response, USTH said that the Administration was given to understand that the trades had reached an understanding on the need for a fare increase amongst themselves before submitting the applications, and that the interests of the drivers and owners had been taken into account. He supplemented that taxi owners were committed not to increase taxi rental within three months after the new fares, if approved, took effect. The Administration also observed from experience that rental increase might not have a direct relationship with fare increase. Indeed, owners would regularly review the business environment, income of taxi drivers and operating cost, and maintain a dialogue with taxi drivers in regard of rental level. He said that Transport Department ("TD") would keep in view the situation.

8. USTH added that since the relationship between taxi owners and drivers was commercial by nature, it would not be appropriate for the Administration to interfere in the business arrangements between them. Nevertheless, he undertook that TD would reflect members' view to the trade. He also undertook that TD would continue to monitor the operation of taxi trades, including the changes of income of taxi drivers and taxi rental after the fare increase.

9. Dr KWOK Ka-ki pointed out that taxi was an essential mode of transport for those who were in need, for example, the disabled and those who lived in areas with inadequate public transport service. As such, he would not support a substantial increase in taxi fares. USTH reassured members that apart from ensuring the financial viability of taxi operations, public acceptability of the proposed fares would be amongst the considerations of the Administration in assessing the taxi fare increase applications.

10. Mr Tony TSE and Mr Jeffrey LAM indicated support for the taxi fare increase applications, which would help improve the financial viability of both taxi owners and drivers. Sharing other members' concern, Mr TSE

opined that it would be important to ensure that taxi drivers would benefit from the proposed fare increase.

11. Mr Frankie YICK remarked that due to the increasing operating costs, including vehicle maintenance and insurance, there was a genuine need for taxi owners to increase taxi rental. According to his analysis, if the proposed fare increase applications were approved, the daily income of each taxi driver would increase by about \$40-\$50 after deducting the necessary cost. He considered that the fare increase would benefit taxi drivers to a certain extent.

Measures to improve the operating environment of taxi trade

Establishment of taxi fuel surcharge mechanism

12. Having pointed out that the difficulties faced by taxi drivers could not be simply solved by increasing taxi fares, Mr WONG Kwok-hing, Mr TANG Ka-piu and Mr LEE Cheuk-yan enquired about the Administration's stance in respect of the request previously made by some members of the taxi trade for a taxi fuel surcharge as a means to help the trade. Mr Frankie YICK suggested that although there might be technical difficulties in establishing such a mechanism, the Administration should seriously study its feasibility.

13. Pointing out that fuel surcharge was not included in the current applications, USTH advised that the Administration would study overseas experiences of implementing and not implementing a fuel surcharge, and see whether and how such experiences would be of relevance to the situation in Hong Kong. The Administration understood that preference of the trade was for the Government to first process the taxi fare increase applications according to the existing mechanism. He added that the study would take time, and that if the amount of the fuel surcharge would be adjusted upward or downward automatically in tandem with the Liquefied Petroleum Gas ("LPG") price, the Legislative Council ("LegCo") and the Administration might not be able to perform their gate-keeping role in respect of the surcharge. In addition, simply imposing a surcharge on fuel would transfer the fluctuation of the cost concerned completely and directly to the passengers, and could have across-the-board implications for other public transport modes. The proposal would also require legislative amendments for implementation. Therefore, the matter had to be considered carefully by the Administration.

14. In response to the enquiries made by Mr WONG Kwok-hing and Mr TANG Ka-piu on the timetable of the study, USTH indicated that the study would take about 12 to 14 months to complete.

Increasing the number of LPG filling and electricity charging stations

15. Mr Jeffrey LAM pointed out that road traffic congestion, road diversion and inadequate LPG filling stations had made the operating environment of taxi drivers difficult. He urged the Administration to improve the operating environment by provision of more LPG filling and electricity charging stations as well as enhancement of road environment. Both Mr Jeffrey LAM and Mr WU Chi-wai urged the Administration to help introduce more environmentally-friendly taxis, together with supporting facilities like electricity-charging stations.

16. Assistant Commissioner/Management & Paratransit of TD ("AC/M&P") advised that there were a total of 60 LPG filling stations with some 400 filling nozzles in Hong Kong. Noting that there were queues of taxis waiting outside certain LPG filling stations at certain time during the day, the Administration had been liaising with the operators of the filling stations concerned for better queuing arrangements, such as full operation of filling nozzles, with a view to shortening the queuing time. He said that TD and the Environment Bureau had also been making efforts to add more LPG filling stations but they sometimes encountered local objections. AC/M&P added that the Administration had facilitated the taxi trade to use hybrid taxis, which was operated on petroleum and electricity, in Hong Kong. The Administration believed that the operating environment of taxis would be improved gradually with the introduction of the new type of taxis.

17. Ir Dr LO Wai-kwok said that he had been a member of the Steering Committee of the Pilot Green Transport Fund. He recalled that one of the applications for the Fund was related to the procurement of a new type of green taxi which was wheelchair assessable for a pilot scheme. As its service had to be pre-booked, taxi operators would be able to recharge at a designated place. He asked when the Administration would announce the outcome of the pilot scheme and the implementation schedule.

18. AC/M&P advised that about 10 green taxis had been approved under the Pilot Green Transport Fund administered by the Environmental Protection Department. As for the aforementioned application, TD learnt from the operator concerned that there had been problems with the production of the type of green taxis. As for the hybrid taxis and electric

taxis, which had been in operation in Hong Kong for three months and one month respectively, TD had been liaising with the trade to understand the operation of those taxis in terms of energy saving, operation and passenger response. He said that more time should be allowed to gather data and TD would keep in view the situation.

Other measures

19. Mr WONG Kwok-hing, Mr LEE Cheuk-yan and Mr Frankie YICK considered that to meet the practical needs of taxi operation, the Administration should relax the no stopping restrictions on roads for taxis. AC/M&P said that since 2003, TD had put in place a relaxation scheme for "peak-hour" and "7 am to 7 pm" no stopping restrictions on roads with speed limits less than 70 kilometres per hour for taxis. Indeed, there was already an established mechanism for taxi trade to submit their relaxation suggestions to TD regularly and TD would consider the need to further relaxing the relevant restrictions.

20. Mr TANG Ka-piu and Mr LEUNG Kwok-hung considered that the Administration should adopt measures to tackle discount gang activities and help taxi operators to cope with the burden of a high insurance cost. USTH responded that the problem of fare bargaining had been alleviated since the implementation of the new fare structure of "front-loaded with a varying descending scale for incremental charges". He added that the level of insurance premium would depend on the number of accidents that a certain vehicle type was involved. The Administration noted that the insurance cost for taxis had been increased by 2% to 3% last year.

21. Mr Frankie YICK pointed out that the number of private cars in Hong Kong had increased rapidly and there was heavy traffic congestion on roads. With the expansion of railway network, the demand for taxi had gradually decreased. As such, he urged the Administration to conduct the Fourth Comprehensive Transport Study ("CTS") to make forward planning for the development of the transport system in the next decades, and to specify clearly the roles of the various modes of public transport so as to facilitate their development. The Chairman echoed that the Administration should discuss with the Panel on Transport ("the Panel") on how to proceed with the Fourth CTS in the future. The Administration noted the views of Mr YICK and the Chairman.

22. Individual members made further suggestions to improve the operating environment of taxi operators as follows –

- (a) Mr NG Leung-sing suggested that the Administration might consider introducing "low-rent" taxi licences so that taxi drivers could rent the taxi at a reasonable cost.
- (b) Mr CHUNG Kwok-pan suggested that the Administration might consider introducing different tiers of taxi service and allow better equipped taxis to charge a higher fare. This might help increase the income of taxi drivers.
- (c) Ir Dr LO Wai-kwok suggested to encourage taxis to switch shifts at different times in the day. This could on one hand reduce the waiting time for LPG refueling and on the other hand facilitate passengers in finding a taxi.
- (d) Dr KWOK Ka-ki proposed that the Administration might consider providing subsidy, such as tax exemption, etc, to taxi drivers; or issuing more taxi licences at a lower premium with restrictions on the level of taxi rental, on the condition that those taxis should serve passengers with special needs, such as the disabled.
- (e) The Chairman considered that the Administration should explore the feasibility of a car ownership scheme for the drivers, as suggested by some LegCo Members and see whether it could be put into trial for public light buses and taxis.

23. The Administration noted the above views. USTH and AC/M&P responded that the idea of providing multi-purpose or premium taxi services had been raised at past meetings of the Transport Advisory Committee. In fact, the taxi trade was generally receptive. Nevertheless, the implementation of the proposals had to be further considered by the trade, having regard to the market acceptability and risks of investment. TD would keep an open mind.

24. In respect of the suggestion of providing subsidy to taxi drivers, USTH responded that the proposal would not be compatible with the general framework of public transport management. Notwithstanding this, TD would continue to communicate with the taxi trade on how TD could help to improve the operating environment.

25. Mr CHUNG Kwok-pan expressed concern that although the design of taxis was outdated, the cost of procuring one was high. AC/M&P advised that the average age of existing taxis was more than 10 years and their facilities would unavoidably be not the most up-to-date. However, the facilities of the new types of taxis, such as hybrid and electric taxis, were comparable to those of private cars in the market. The Administration noted that with the competition of new types of taxis, the price of a new LPG taxi had gone down.

Taxi service

26. Dr KWOK Ka-ki and Mr Albert CHAN expressed grave concern that the existing number of Lantau taxis, i.e. 50, was far from adequate, in particular during weekends and public holidays. They strongly requested the Administration to promptly take effective measures, such as issuing more Lantau taxi licences, to address the problem. Declaring that he lived on Lantau Island, Mr CHAN also suggested that the Administration might consider allowing urban or NT taxis to provide taxi service on Lantau Island during weekends and holidays.

27. AC/M&P advised that TD had been liaising with the Islands District Council on the public transport arrangement, including taxi service, on Lantau Island. TD was assessing the situation and urban taxis were already allowed to serve Lantau. As for the suggestion for NT taxis to operate on Lantau Island during specific days, AC/M&P said that the proposal had to be carefully considered due to the limited road capacity in Southern Lantau. In addition, there might be other administrative difficulties for the implementation.

28. Mr Tony TSE expressed concern on the ageing problem of taxi drivers, which might give rise to the safety concern and affect the image of Hong Kong. He attributed the ageing problem of taxi drivers to low income, absence of benefits and long working hours of the trade. In his opinion, the Administration should take measures to improve the income and benefits of taxi drivers with a view to attracting more young people to work as taxi drivers and enhancing the service of taxis.

29. USTH agreed that the service quality of taxis was closely related to the operating environment of the trade. It was thus important to maintain the financial viability of taxi operators and this would be one of the factors that the Administration would consider in assessing the fare increase applications.

Taxi licence premium

30. Mr WONG Kwok-hing, Mr TANG Ka-piu, Mr LEE Cheuk-yan, Mr Tony TSE and Mr LEUNG Kwok-hung expressed concern over the soaring taxi licence premium which might push up taxi rental, and urged the Administration to take effective measures to dampen speculation on the trading of taxi licences. Mr WONG said that the high taxi licence premium had caused higher mortgage loan repayment, leading to the taxi owners' application for fare increase to cover the cost. However, Mr Frankie YICK considered that there was not a direct relationship between taxi licence premium and taxi rental. He explained that if there was such a relationship, the taxi rental should have been doubled.

31. Mr NG Leung-sing asked whether there was a relationship between taxi licence premium and taxi fare increase. He considered that apart from studying the increase of supply of taxi licence as suggested by some members, the Administration should also consider the feasibility of establishing a buy back mechanism so as to stabilize the taxi licence premium.

32. USTH advised that since the last taxi fare increase in July 2011, taxi licence premium had increased by about 40%. The increase of taxi rental was, however, far lower than that. He added that the transfer of taxi licences was a commercial activity and the level of taxi licence premium was determined by the market. According to the Administration's observation, changes in taxi licence premium were not directly related to the level of taxi rental or taxi fare increase. Rather, macro-economic and financial factors, such as the current low interest rates, would boost market demand for taxi licences and push up taxi licence premium. Notwithstanding the above, the Administration understood that there would be concerns over the continuous and substantial increase of taxi licence premium as it might affect the quality of taxi service, taxi rental level and income of taxi drivers. The Administration would continue to closely monitor the situation and collect market information on taxi licence premium and taxi mortgage loans through various channels, including the trade associations and the Hong Kong Monetary Authority.

33. USTH further said that in the event that any irregularity affecting the stability of taxi service or healthy development of the trade was found, the Administration would consider necessary measures to deal with the situation. In general, speculative activities could be suppressed by increasing supply and transaction cost. However, the implementation of such measures should be carefully considered and handled to ensure that

they were effective and beneficial to the healthy development of the trade in respect of the service and operation.

34. Mr WU Chi-wai expressed concern over some news reports that the number of taxis serving the public was far lower than the total number of about 18 000 taxis in Hong Kong, as some consortia had hoarded taxis for the sake of pushing up the licence premium. Noting that the levels of taxi rental of different operators were similar, he asked whether the Administration had assessed if there were any collective pricing activities.

35. USTH said that the similar rental level of taxis had reflected the market rate. He added that of the 18 000 taxis, it was estimated that less than 1% were not providing service at any one time for different reasons. The Administration had not detected any signs that there had been hoarding of taxis.

Way forward

36. In response to the Chairman, USTH said that after consulting the Panel, the Administration would seek the views of the Transport Advisory Committee before submitting its recommendations to the Executive Council. In addition, the new fares had to go through negative vetting by LegCo before implementation. The new fares were targeted to be implemented before end of 2013.

37. The Chairman concluded that the panel generally had no objections to the fare increase applications made by the three taxi trades. He called for the Administration to take into account the views and concerns expressed by members at the meeting.

V Recycling of asphalt pavement in road maintenance

(LC Paper No. CB(1)1298/12-13(05) - Administration's paper on recycling of bituminous pavement materials in road maintenance

LC Paper No. CB(1)1298/12-13(06) - Paper on road maintenance in Hong Kong prepared by the Legislative Council Secretariat (background brief))

38. USTH briefed members on the Administration's research studies on the recycling of bituminous pavement materials and its applications in road maintenance. Assistant Director/Technical ("AD/T") of Highways Department ("HyD") then made a powerpoint presentation (LC paper No. CB(1)1361/12-13(01)) to further brief members on the recycling of such materials, and the in-situ recycling technology.

General views

39. Mr WONG Kwok-hing welcomed the use of recycled bituminous materials in road maintenance. He enquired about the number of eligible suppliers which were capable of supplying such materials and adopting the in-situ recycling technology.

40. AD/T advised that according to the Government's list of suppliers, there were five eligible suppliers in the category. They had actively participated in supplying bituminous materials to public works contracts of the Government in the past. He added that the Administration had been promoting actively and liaising closely with those suppliers on the production of bituminous materials incorporated with recycled materials and the adoption of in-situ recycling technology.

41. Mr TANG Ka-piu noted that HyD had incorporated provisions on the application of thermal patchers for road maintenance contracts made since 2011. Pointing out that such technology was to utilize heat radiation to soften defective bituminous pavement, he expressed concern over the possible risk of heat stroke suffered by road maintenance workers under very hot weather. He enquired if there were any guidelines governing the use of thermal patchers in this regard, such as provision of special protective clothing for workers or restrictions on the working time.

42. AD/T advised that the adoption of thermal patchers for road maintenance would not significantly increase the temperature of surrounding areas. In addition, workers would not need to touch the heating parts of thermal patchers. As such, the clothing of the road maintenance workers would be the same no matter if they were using the traditional methods or thermal patchers. He added that, in general, the Construction Industry Council had published guidelines for workers working in construction sites, which provided guidance on how construction workers working in hot weather would be protected.

43. Mr Frankie YICK asked if there was any difference in the cost for adopting in-situ recycling technology and traditional bituminous pavement

maintenance methods, and the prevalence of the application of in-situ recycling technology in road maintenance.

44. AD/T advised that the initial cost of adopting in-situ recycling technology would be relatively higher than that of traditional methods as new machinery would need to be procured in particular. However, the relevant investment cost would be one-off only. In the long run, the cost difference between the two technologies was expected to be narrowed, given that the cost of the materials as well as the costs for transportation and disposal of bituminous waste associated with the in-situ technology would be lower. As regards the application of in-situ recycling technology in road maintenance, AD/T advised that due to the busy traffic in Hong Kong, only limited time would normally be available for road maintenance. In view of the time needed to soften the road pavement, the adoption of in-situ recycling technology was only suitable for small scale road maintenance works. For large scale works, traditional bituminous pavement maintenance methods should be adopted.

45. Ir Dr LO Wai-kwok strongly supported the recycling of bituminous pavement materials and its application in road maintenance. In his view, it would be more ideal if the ratio of bituminous waste used in production of new bituminous materials could be increased to maximize reuse of waste materials. Noting that about three quarters of roads in Hong Kong were paved with bituminous materials, Ir Dr LO asked whether such proportion would be adjusted in the future. He also expressed concern on how the Administration would dispose bituminous waste.

46. AD/T responded that it was the Administration's strategy to increase the adoption of recycled materials for road maintenance as far as practicable. As for the ratio of paving bituminous materials on roads, he said that as both concrete and bituminous pavements had their own advantages, both types of materials would be adopted for roads according to the functional requirements and the site circumstances. AD/T further said that bituminous waste would be transported for reuse at bituminous material production plants or storage at the public fill bank for future use. He advised that due to the implementation of a number of road construction projects recently, a large quantity of bituminous waste could be reused.

Performance of bituminous materials incorporated with recycled materials

47. The Chairman, Mr TANG Ka-piu, Ir Dr LO Wai-kwok and Mr Frankie YICK were concerned about the effectiveness of adopting in-situ recycled technology with recycled bituminous materials as compared

to the traditional bituminous pavement maintenance methods in road maintenance. In particular, the Chairman, Mr YICK and Ir Dr LO had also expressed concern about the durability and drainage property of recycled bituminous materials.

48. In response, AD/T said that the Administration had examined the effect on the performance of the functional properties and durability of different layers of bituminous pavement arising from the incorporation of recycled materials. The research results showed that if the amount of recycled materials was lower than 15% of the total mass of the bituminous materials, the performance would be similar to brand new bituminous materials. He added that, as a normal practice, HyD had conducted regular inspections on public roads to identify defects if any and arranged for remedial works.

49. Notwithstanding the Administration's response above, the Chairman pointed out that from his observation, the newly paved roads in recent years were worn off quickly. The uneven road surface at both ends of tunnels was particularly significant. He urged HyD to monitor the durability of paved roads with recycled materials and to review whether the adoption of recycled materials would entail more frequent repairs and hence higher repair cost. The Chairman and Mr Frankie YICK further asked whether HyD would monitor the production process of bituminous materials incorporated with recycled materials.

50. AD/T explained that due to the high usage rate of roads in Hong Kong, they were subject to wear and tear easily. Apart from regular inspections, HyD was establishing a management system to formulate condition indicators so that timely maintenance could be carried out for defective roads. He added that the Administration had stringent control on the production process of bituminous materials incorporated with recycled materials. Apart from requiring the factories concerned to certify the ingredients of materials and testing product samples to verify the compliance with relevant specifications, HyD would regularly conduct on-site inspection to production plants and collect raw material samples for testing.

51. In response to the concerns of Mr WONG Kwok-hing and Mr LEUNG Kwok-hung on the effectiveness of recycled bituminous pavement materials in respect of noise reduction, AD/T said that HyD had experimented the use of different bituminous materials to reduce noise generated from tyres of vehicles. The result was however not very satisfactory, in particular on roads where there were frequent turning and

braking actions of vehicles. The road surface was found to have worn out quickly. Nevertheless, the Administration would continue to explore the availability of new noise reducing materials which were more durable.

Research studies

52. Mr LEUNG Kwok-hung appreciated the Administration's efforts in adopting recycled bituminous materials for road maintenance to reduce waste generation from road works. Noting that HyD had collaborated with the Hong Kong Polytechnic University ("HKPU") to research into the appropriate ratio of bituminous waste used in production of new bituminous materials, Mr LEUNG asked whether the relevant contract was still in force, and suggested that the Administration should entered into a long term contract with HKPU to develop more advanced technologies to benefit Hong Kong. Mr Frankie YICK supported the suggestion of Mr LEUNG and added that the organization he served had sponsored the relevant research work and would continue to support the work. Besides, such technologies could also be sold to other cities/countries.

53. AD/T confirmed that the Administration had collaborated with the Department of Civil and Environmental Engineering of HKPU in the research and the Administration provided funds for the research in this regard. He added that HyD had maintained close contact with local tertiary institutions and would finance new research on study-by-study basis as appropriate.

VI Any other business

54. There being no other business, the meeting ended at 12:50 pm.