

立法會
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Public Works Subcommittee of the Finance Committee

**Minutes of the 6th meeting
held in the Chamber of Legislative Council Building
on Wednesday, 22 January 2003, at 10:45 am**

Members present :

Ir Dr Hon Raymond HO Chung-tai, JP (Chairman)
Hon Albert CHAN Wai-yip (Deputy Chairman)
Hon Kenneth TING Woo-shou, JP
Hon Eric LI Ka-cheung, JP
Hon James TO Kun-sun
Hon CHAN Yuen-han, JP
Hon CHAN Kam-lam, JP
Hon SIN Chung-kai
Hon Andrew WONG Wang-fat, JP
Hon YEUNG Yiu-chung, BBS
Hon LAU Kong-wah
Hon Miriam LAU Kin-yee, JP
Hon Emily LAU Wai-hing, JP
Hon CHOY So-yuk
Hon Andrew CHENG Kar-foo
Hon TAM Yiu-chung, GBS, JP
Dr Hon TANG Siu-tong, JP
Hon Abraham SHEK Lai-him, JP
Hon Henry WU King-cheong, BBS, JP
Hon WONG Sing-chi
Hon IP Kwok-him, JP
Hon LAU Ping-cheung

Non-Subcommittee Member attending:

Hon Albert HO Chun-yan

Members absent:

Dr Hon David CHU Yu-lin, JP
Hon Cyd HO Sau-lan
Hon Fred LI Wah-ming, JP
Hon WONG Yung-kan
Dr Hon LAW Chi-kwong, JP

Public officers attending:

Dr Sarah LIAO, JP	Secretary for the Environment, Transport and Works
Miss Elizabeth TSE, JP	Deputy Secretary for Financial Services and the Treasury (Treasury) ³
Mr Y C LO, JP	Permanent Secretary for the Environment, Transport and Works (Transport and Works)
Mr John TSANG, JP	Permanent Secretary for Housing, Planning and Lands (Planning and Lands)
Mr Rob LAW, JP	Director of Environmental Protection
Mr Elvis AU	Assistant Director (Environmental Assessment and Noise) Environmental Protection Department
Miss Janice TSE	Principal Assistant Secretary for Financial Services and the Treasury (Treasury)
Mr William C G KO, JP	Director of Water Supplies
Mr LEUNG Mang-chiu	Assistant Director of Water Supplies (New Works)
Mrs Rita LAU, JP	Permanent Secretary for the Environment, Transport and Works (Environment)
Mr Paul TANG, JP	Deputy Secretary for the Environment, Transport and Works (Transport and Works) T1
Mr H K WONG, JP	Director of Territory Development
Mr C W KAM	Chief Engineer/Shu Tin Territory Development Department
Mr H L CHENG	Chief Engineer/New Territories East Transport Department
Mr MAK Chai-kwong, JP	Director of Highways
Mr NG Kwok-kee	Deputy Project Manager/Major Works (3) Highways Department
Mr SO Yam-tat	Chief Engineer/Strategic Roads Transport Department
Mr LEE Yan-ming	Chief Engineer/New Territories West Transport Department
Mr Arthur HO, JP	Deputy Secretary for the Environment, Transport and Works (Transport and Works) T2
Mr MA Lee-tak	Government Engineer/Railway Development Highways Department

Clerk in attendance:

Ms Anita SIT

Chief Assistant Secretary (1)6

Staff in attendance:

Ms Pauline NG

Assistant Secretary General 1

Ms Rosalind MA

Senior Assistant Secretary (1)9

Ms Caris CHAN

Senior Legislative Assistant 1

Mr Frankie WOO

Legislative Assistant 2

HEAD 709 – WATERWORKS**PWSC(2002-03)83****323WF****Provision of water supply to Ngong Ping**Cost-effectiveness of the proposed water supply facilities

Mr Albert CHAN expressed concern about the cost-effectiveness of the proposed water supply facilities. In view of precedent cases of constructing fresh water supply facilities at high costs for some remote villages, he asked whether the Administration had explored alternative modes of water supply to Ngong Ping. He in particular asked whether the construction of facilities for storage and treatment of stream water in Ngong Ping had been considered. Moreover, he enquired whether the Administration had undertaken a review on its policy on the provision of water supply to remote villages.

2. Ms Emily LAU was also concerned about the provision of fresh water supply to remote villages in cost-effective ways. In this connection, she requested the Administration to provide information on the work being done to explore alternative modes of water supply to remote villages to ensure cost-effectiveness without compromising the objective of providing safe and reliable fresh water supply for these villages.

3. The Permanent Secretary for the Environment, Transport and Works (Transport and Works) (PS(ETW)) replied that a review on the provision of water supply to remote villages was underway. Relevant projects under planning and feasibility study had been suspended pending the completion of the study on alternative modes of water supply at lower costs. He agreed to provide the information as requested by Ms Emily LAU.

Admin

4. As regards the proposed water supply facilities for Ngong Ping, the Director of Water Supplies (DWS) explained that as the existing water supply facilities in Ngong Ping were of small scale and thus unable to cope with the anticipated increase in demand arising from the planned tourism and recreation

developments in the area, additional facilities would be necessary. He pointed out that water supply from local streams would not be adequate to meet the future demand for fresh water in Ngong Ping. Moreover, in view of the hilly topography of Ngong Ping, construction and maintenance of facilities for storage and treatment of stream water in the area would involve very high cost, if not infeasible. To ensure adequate and reliable water supply, the proposed facilities were necessary. In response to Mr Albert CHAN's further query on whether any cost analysis of alternative modes of water supply for the area had been conducted, DWS reiterated that it would not be practicable to construct and maintain facilities for storage and treatment of stream water in Ngong Ping given the topographic constraints of the area.

5. Responding to Mr Henry WU's enquiry, DWS advised that the estimated annual recurrent expenditure of \$1,887,000 arising from the project was largely attributed to the electricity cost for pumping fresh water from the proposed Shek Mun Kap pump house to Ngong Ping.

Anticipated demand for fresh water in Ngong Ping

6. Mr IP Kwok-him pointed out that the proposed new water supply facilities were for coping with the anticipated increase in demand for water supply due to the increase in tourist activities upon the completion of the cable car system linking Tung Chung and Ngong Ping. Therefore, it was not appropriate to consider in the same context as the water supply projects for meeting the demand of residents of remote villages. He sought information on the existing and the estimated future daily consumption of fresh water in Ngong Ping.

7. In reply, the Assistant Director of Water Supplies (New Works) (ADWS) advised that the existing water supply facilities in Ngong Ping made use of a storage tank of 180 cubic metres in capacity. This capacity was far less than that required to cope with the anticipated increase in demand, estimated to be about 1 200 cubic metres per day by 2016.

8. Noting the significant increase in daily fresh water demand arising from the planned developments in Ngong Ping, Mr IP Kwok-him said that members of the Democratic Alliance for the Betterment of Hong Kong supported the project proposal.

9. Mr Andrew WONG opined that in view of the need to provide hygienic and reliable fresh water for the consumption of local residents and tourists in Ngong Ping, he considered the project proposal appropriate and supported the implementation of the proposed works.

10. In response to Mr WONG Shing-chi's enquiry on the capability of the proposed facilities to cater for further increase in demand, DWS advised that while the proposed water supply facilities could cope with the daily demand of about 1 200 cubic metres by 2016, the daily water supply could be increased by 20% to 30% through modifying the equipment of the pump house.

11. Noting that the proposed project would be completed in 2005 but the capacity for provision of water supply would cater for the anticipated increase in demand by 2016, Ms Emily LAU requested the Administration to provide further information on the existing fresh water demand in Ngong Ping and how the estimated daily fresh water demand of about 1 200 cubic metres by 2016 in Ngong Ping was arrived at.

Admin

Visual impact of the water tank and water trunk mains

12. Ms Emily LAU expressed concern about the visual impact of the proposed facilities on the scenic environment of Ngong Ping. Referring to the water mainlaying works at Wu Kau Tang in the Plover Cove Country Park, Ms LAU commented that the laying of exposed water mains in the Country Park had caused environmental nuisance and destroyed the nice scenic setting of the Country Park. In this connection, she enquired about the design of the proposed water supply facilities, including the Ngong Ping fresh water tank and the water trunk mains. Mr Henry WU shared Ms LAU's concern about the visual impact of the proposed facilities, in particular, the Ngong Ping fresh water tank. Noting that the proposed water tank would have a storage capacity of 1 000 cubic metres, Mr WU sought information on the design of the tank and measures to minimize its visual impact.

13. PS(ETW) advised that virtually all the proposed water mains would be laid underneath hill slopes or underground and thus should not have significant negative impact on the scenic environment. He assured members that necessary measures would be implemented during the works period to minimize environmental nuisance to visitors of the Lantau North Country Park.

14. On the design of the water tank, ADWS advised that it would be constructed in the form of a low structure of about 4 metres in height and located on a slope near the Po Lin Monastery. To enhance the outlook of the water tank and minimize its visual impact on the environment, the contractor would be required to provide appropriate landscaping in its surroundings. DWS added that due consideration would be given to the aesthetic design of the proposed works and appropriate landscaping would be provided under the project. At the request of Ms Emily LAU, DWS agreed to provide perspective diagrams and/or photos to illustrate the key design features and visual effect of the water tank to be constructed under the project.

Admin

15. Ms Emily LAU commented that to address members' concern, the Administration should provide information on the possible visual impact of water mains, if any, in future submissions involving the construction of water mains. PS(ETW) agreed to provide such information in future submissions and to provide cross-sections to illustrate the location of water mains where appropriate.

Admin

16. The item was voted on and endorsed. Mr Albert CHAN expressed objection to the proposal. Ms Emily LAU said that she held reservation over the

proposal pending the Administration's provision of further information to address her concerns. She requested that this item be voted on separately at the relevant Finance Committee meeting.

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT

PWSC(2002-03)82 458CL Sha Tin New Town, stage 2 – construction of Road T3

17. Members noted that this project had been discussed at the meeting of the Panel on Transport on 20 December 2002.

18. Ms Miriam LAU, Chairman of the Panel on Transport, reported on the discussion at the Panel and the follow-up actions taken, as follows:

- (a) Panel members expressed concern about the cost-effectiveness and the visual impact of the proposed noise barriers, and in this connection sought information on the number of beneficiary dwellings and the design and construction materials of the proposed noise barriers;
- (b) A supplementary information paper provided by the Administration to respond on members' concerns had been circulated to Panel members vide LC Paper No CB(1)629/02-03(01); and
- (c) A joint meeting had been arranged with the Panel on Environmental Affairs to be held on 23 January 2003 to discuss the policy issues relating to the installation of noise barriers.

Review of the policy on mitigating road traffic noise

19. Mr Andrew CHENG pointed out that the cost for installing noise barriers for the three highway projects submitted for discussion at this meeting amounted to a total of around \$1.1 billion and that the policy on mitigating road traffic noise would be discussed at the joint meeting of the Panel on Transport and Panel on Environmental Affairs on 23 January 2003. He was thus concerned whether it would be appropriate for the Public Works Subcommittee (PWSC) to consider at this meeting the funding provision for the noise barriers under the three highway projects. Mr CHENG referred to the controversy over the installation of noise barriers under the Tolo Highway road widening project and opined that while adequate noise mitigation measures should be provided for existing developments, various aspects relating to the provision of noise mitigation measures for planned developments should be further considered. Mr CHENG suggested that the funding requests for the installation of noise barriers under the three projects, PWSC(2002-03)80 to 82, be taken out from the project proposals pending the result of the review on the policy on mitigating road traffic noise.

20. The Chairman shared Mr CHENG's concern about the provision of noise barriers for planned developments and considered the relevant statutory requirements under the Environmental Impact Assessment (EIA) Ordinance should be reviewed. He also expressed concern about the effectiveness of noise barriers for mitigating traffic noise vis-à-vis that of other noise mitigation measures having less visual impact.

21. The Secretary for the Environment, Transport and Works (SETW) stressed the significance of the three project proposals to the economy of Hong Kong in terms of creation of job opportunities and provision of necessary transport infrastructure to support future development. She explained that the EIA Ordinance provided the project proponents with flexibility with regard to the timing of installation of noise barriers for planned developments. She affirmed that the proposed noise barriers under the three project proposals were necessary to meet the minimum requirements on noise mitigation measures under the EIA Ordinance. Noise barriers would be provided to protect existing dwellings which would be subject to excessive traffic noise upon commissioning of the new/widened roads. For planned developments, only foundation works would be done to allow for the installation of noise barriers in future. In this regard, the funding provisions for noise barriers for existing and planned developments had been accounted for in the project proposals. The Administration did not envisage that deliberation on the policy on traffic noise mitigation measures at the joint Panel meeting on 23 January 2003 would affect the provision of noise barriers under the three project proposals.

22. While appreciating the significance of the project proposals, Mr Andrew CHENG remained concerned about possible changes to the provision of noise mitigation measures under the projects after the review of the policy on traffic noise mitigation measures. He opined that it would be undesirable for PWSC members to endorse funding for construction of noise barriers which might subsequently found to be excessive and had to be removed at extra cost as in the case of the Tolo Highway widening project. He also commented that in the course of reviewing the existing policy, the Administration should actively consider means of involving private developers in alleviating traffic noise impact on planned residential developments.

23. SETW reiterated that the noise barriers to be constructed under the three highway projects were the minimum provision required to protect the existing dwellings in accordance with the statutory requirements stipulated under the EIA Ordinance. The projects could not be implemented without the provision of these noise barriers. She also pointed out that the statutory noise limit of 70 dB(A) for residential developments was an international standard commonly adopted in other developed countries. The Administration considered that to achieve a balance between economic development, environmental protection and social acceptability in Hong Kong's unique high-density city setting, this standard should be maintained.

24. Mr Albert CHAN expressed objection to the removal of noise barriers erected along the Tolo Highway simply on account of visual obtrusion. He considered that the primary consideration should be to relieve affected residents from excessive traffic noise nuisance which had significant adverse effect on one's health and general well-being.

25. In response to the Chairman's concern over the methodology currently used for calculating traffic noise level, the Assistant Director (Environmental Assessment and Noise), Environmental Protection Department (AD(EA&N)) advised that the assessment was made on the traffic noise generated during peak hours, which was an effective method accepted internationally for assessment of traffic noise impact. The Director of Environmental Protection (DEP) added that the peak hour noise level was actually a surrogate for the noise level assessments developed from the measurement for an 18-hour period, covering traffic noise levels during the day as well as the evening. The peak hour noise level was used for simplicity purpose as it was found to produce the same result as that of an 18-hour period.

26. Mr Abraham SHEK commented that there was an urgent need to review the policy on traffic noise mitigation to ensure that noise mitigation measures were sensibly implemented for the protection of affected residents without causing undue delay in capital works projects and/or excessive provision of noise barriers. He opined that in this connection, the Administration had the responsibility of reviewing the relevant statutory provisions under the EIA Ordinance.

27. Ms Emily LAU pointed out that the policy on traffic noise mitigation involved complicated issues which would require further discussions by the Legislature from a broader perspective. She considered that provision of noise barriers for the protection of existing dwellings was only a remedial measure, and such a remedial measure often had important cost implications and significant visual impact.

28. Mr LAU Kong-wah opined that the Road T3 project should not be compared with the Tolo Highway widening project as the former would be constructed within the centre of Tai Wai, with a large number of existing residential developments in its vicinity. He considered the provision of the proposed noise barriers necessary for the protection of the nearby residents and objected to taking out the funding request for noise barriers from the project proposal. Mr TAM Yiu-chung echoed Mr LAU's view.

29. Mr Andrew CHENG clarified his stance that he supported the provision of noise barriers for the protection of nearby residents from excessive traffic noise impact. He stressed that his proposal of taking out the funding request for noise barriers from the project proposals for separate consideration at a later stage should not be interpreted as a denial of the effect and importance of providing noise barriers for affected residents. He was trying to adopt a cautious approach in considering the funding for noise barriers in the light of the experience of the Tolo Highway widening project.

Impact of traffic noise on educational institutions

30. Referring to Enclosure 3 of the paper, Ms Emily LAU commented that in view of the proximity between the proposed Road T3 and the Lau Pak Lok Secondary School (LPL School), the objection of the school to the proposed road works was understandable and justified. She queried whether the proposed form of noise barrier would be adequate to protect the school from the traffic noise nuisance. In this connection, she sought information on whether indirect mitigation measures for the school, such as insulated windows and air-conditioning, had been considered. Mr IP Kwok-him shared Ms LAU's concern and asked the Administration to liaise closely with the school and put in place proper measures to reduce traffic noise.

31. In response, the Director of Territory Development (DTD) said that the impact of the proposed road scheme on LPL School had been taken into consideration in the design of the relevant road section. However, owing to site constraint and practical requirement for connecting the road to Route 9 and Tai Po Road, it was not feasible to adjust the road alignment to locate T3 further away from the school. He advised that as the road section of T3 close to LPL School would be an elevated road and the school building was relatively low compared with other buildings in the vicinity, the proposed provision of noise barriers could effectively reduce noise level to below the statutory limit of 65dB(A) for educational institutions. DTD would liaise with the school authority for proper measures during the construction period to minimize disturbance to and ensure safety of students and teachers of the school.

32. Responding to Ms LAU's concern about the provision of insulated windows and air-conditioning for the school, DTD said that such provision was being arranged under a separate scheme administered by the Education and Manpower Bureau (EMB). Noting Mr Andrew WONG's concern about the impact of the project on another nearby school, the Christian Alliance Cheng Wing Gee College, DTD advised that the school authority had been consulted and it was satisfied with the proposed traffic noise mitigation measures proposed in the project. To address members' concerns, DTD undertook to liaise with EMB to actively consider the provision of insulated windows and air-conditioning for the affected schools.

Admin

33. In reply to Ms Emily LAU's enquiry, the Chief Engineer/Sha Tin, Territory Development Department advised that the distance of the school from the proposed road was about 10 metres. At the request of Ms LAU, DTD agreed to provide a cross-section showing the distance and relative locations of the proposed elevated carriageway and LPL School. Ms LAU expressed reservation on the project proposal pending the provision of the requested supplementary information by the Administration.

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Cost-effectiveness of the proposed noise barriers

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34. Mr LAU Ping-cheung expressed concern about the cost-effectiveness of the proposed noise barriers. He considered the estimated cost for the installation of noise barrier in the project on the high side. Moreover, he doubted whether the provision of noise barriers in the form of semi-enclosure would be necessary for elevated roads. In this connection, he requested the Administration to provide details on the basis and method for determining the types of noise barriers to be installed at different sections of the proposed T3. The Chairman shared Mr LAU's concern about the high cost estimate for the provision of noise barriers and queried whether the estimate had been inflated.

35. DTD explained that there would not be significant discrepancy between the outturn tender price and the estimated cost for the project as the Administration had started the tendering exercise and the estimated cost had been worked out having regard to the tender prices quoted in the tenderers' bids. He pointed out that there was healthy competition in the market for the provision of noise barriers and the Administration would be able to contract out the project at a fair price. On the choice of types of noise barriers at different sections of the road, DTD advised that consideration had been given to the need for compliance with the statutory limits requirements on noise level, cost-effectiveness of noise barriers as well as the aesthetic design of the barriers. As regards the need for providing noise barriers along the section of elevated road abutting Tai Wai old town centre, DTD said that when measuring the level of traffic noise for the protection of affected dwellings, the refraction of traffic noise had to be taken into account.

Provision of noise barriers for planned developments

36. Ms Miriam LAU sought information on the number of planned developments which were expected to be affected by excessive traffic noise generated from the completed T3. In reply, DTD advised that there were some 2000 units of planned developments expected to be affected, among which 1 840 units would be scattered among the existing developments. The provision of noise barriers for the existing developments could also satisfy the requirement to protect these 1 840 units of planned dwellings. He referred members to footnote 4 in the discussion paper which stated that out of the estimated cost of \$358 million, provisions for noise barriers for existing and planned developments were estimated to be \$348 million and \$10 million respectively. He advised that the provision of \$10 million was to cater for installation of noise barriers at a later stage for the protection of the remaining 160 units of planned development at a site to the northwest of Sha Tin Heights Road.

37. Mr WONG Shing-chi said that members of the Democratic Party supported the project proposal and agreed that for planned developments, there should be flexibility in the timing of erecting the required noise barriers so long as the noise barriers were in place in time to properly protect noise sensitive receivers. He therefore considered the proposed arrangements in the Road T3 project with noise barriers installed for the existing developments in the first instance and funds

reserved for installation of additional noise barriers for planned developments acceptable. Miss CHOY So-yuk shared Mr WONG's view.

Estimate for consultants' fees

38. In response to the concern of Mr LAU Ping-cheung about the apparently high estimate for consultants' fees, DTD explained that as the Road T3 would be constructed in the Tai Wai city centre with a large number of residents in nearby developments, more resident site staff would be required to ensure close supervision of the works to minimize disturbance to nearby residents. He advised that the estimated cost of \$200.1 million was within 10% of the total project cost, which was the standard ratio adopted for estimating consultants' fees for the construction stage of capital works projects.

Aesthetic design of noise barriers and construction materials used

39. On the aesthetic design of the noise barriers, Ms Miriam LAU requested the Administration to make reference to the designs and technologies adopted in other countries for improvement in the design of noise barriers/enclosures provided in Hong Kong. She commented that more effort should be made to provide better alternatives to the existing design of noise barriers, which were normally in the form of visually obtrusive tall vertical panels or enclosures. Mr Kenneth TING and Ms Emily LAU shared Ms Miriam LAU's view and urged the Administration to give more thoughts to the aesthetic design of noise barriers.

40. In response, DTD said that works departments were required to pay due attention to the aesthetic design of noise barriers to soften their visual impact. Different design options would be explored for enhancement of visual quality and compatibility with the vicinity. He advised that in designing the noise barriers in the present project, clear panels would be used as far as possible to minimize the visual obtrusion. SETW supplemented that in Hong Kong, there was usually limited space between roads/flyovers and the nearby buildings, thus restricting the design of noise barriers and making the installation of tall panels and sometimes full enclosures necessary for the reduction of noise level to meet the statutory limit.

41. Responding to Mr LAU Ping-cheung's concern on the flexibility allowed for the contractor in the choice of construction materials to be used for the noise barriers, DTD explained that the Administration would only specify in the tender documents the necessary requirements on the noise reduction effect and the level of transparency of the noise barriers. Hence, the contractor would have flexibility in the choice of suitable construction materials. PS(ETW) supplemented that where proprietary construction materials were quoted in tender documents, they were quoted for illustration purpose only. It would be clearly stated in the tender documents that the use of other materials with equivalent quality or effect would be accepted. In response to Mr LAU's further enquiry, DTD advised that the contractor would be responsible for the detailed design of the noise barriers in the Road T3 project.

42. Mr LAU Ping-cheung suggested that to allow more room for the design of the noise barriers and more competitive bidding, the Administration should package the works relating to the provision of noise barriers in the project separately as a design-and-build sub-contract for open tender. In reply, DTD explained that as the installation of noise barriers and the construction of the carriageway were inter-related, interface problems might occur if different contractors were engaged for the works. Moreover, as explained earlier at the meeting, the Administration had started the tendering exercise for the project and revisions made at this stage would be undesirable for the smooth implementation of the project. Ms Miriam LAU commented that given the complexity and possible controversy of the project, the Administration should not commence the tendering exercise before funding approval was obtained. She also urged the Administration to give serious thoughts to Mr LAU Ping-cheung's suggestion of alternative contract arrangements for noise barriers. The Chairman asked the Administration to consider Mr LAU's suggestion for adoption in other road projects involving the construction of noise barriers.

Clerk and
Admin

43. The item was voted on and endorsed. Ms Emily LAU expressed reservation on the proposal and requested that the item be voted on separately at the relevant Finance Committee meeting.

Items PWSC(2002-03)79, 80 and 81

44. As the meeting had overrun, the Chairman suggested and members agreed that the remaining items on the agenda, i.e., PWSC(2002-03)79,80 and 81, would be deferred for consideration at the next PWSC meeting scheduled for 29 January 2003.

45. The meeting ended at 1:00 pm.

Council Business Division 1
Legislative Council Secretariat
19 February 2003