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ACE Paper 32/2008
For advice

Report on the 106th Environmental Impact Assessment Subcommittee Meeting

INTRODUCTION

On 17 November 2008, the Environmental Impact Assessment (EIA) Subcommittee considered the EIA report on "West Island Line" (WIL) submitted by the MTR Corporation Limited (MTRC) (ACE-EIA Paper 8/2008 refers).

ADVICE SOUGHT

2. Members are requested to advise whether the EIA report should be endorsed.

VIEWS OF THE SUBCOMMITTEE

Need for the Project

3. The EIA report points out that, as one of the priority railway extensions recommended in the Railway Development Strategy 2000, an extension of the existing MTR Island Line to Western District has been under planning for many years. The project is known as the WIL. When completed, it will help improve passenger accessibility to the Western District and relieve road congestion in the area.

Description of the Project

4. The project scope consists of a fully underground railway approximately 3 km long (Figure attached). Three new underground stations will be provided, namely Sai Ying Pun, University and Kennedy Town. Construction is scheduled to start in early 2009 for completion by 2013/2014.

5. The project constitutes a designated project by virtue of Item A.2 (a railway and its associated stations), Item A.7 (a railway tunnel more than 800 m in length between portals) and Item Q.2/K.10 (underground rock cavern/an explosive depot in a stand-alone and purpose built building) under Schedule 2, Part I of the EIA Ordinance.

Consideration of the alternatives/options

6. In the EIA report, alternatives/options with respect to railway alignment, locations of stations, ventilation shafts and underground magazine, and construction methods are provided. The preferred options have taken into account environmental factors as well as other considerations such as passenger accessibility, site constraints, safety and engineering practicability.

Members' views

7. Members noted that the project proponent has submitted the EIA report on WIL to the Advisory Council on the Environment but subsequently withdrew the report in June 2008. The current EIA report was a resubmission of the development project with some amendments. On the major difference between the previous EIA report and the current one, the Environmental Protection Department (EPD) advised that a Quantitative Risk Assessment was added in the current EIA report to assess the hazard to life for the storage, transport and use of explosives for the WIL construction. The project proponent's original plan was to arrange frequent transportation of explosives without the need to build an explosive magazine for storage purpose. However, there were practical difficulties in the transportation arrangement and an explosive magazine was found to be required.

8. Members noted that the public inspection period of the EIA report was

from 14 October to 12 November 2008. Comments received by the EPD were circulated to Members for reference before the meeting and those received after the public inspection period were tabled at the Subcommittee meeting for Members' reference. The response of the project proponent to the questions raised and suggestions made by a non-EIA Subcommittee Member had also been circulated to Members for information before the meeting.

9. Members agreed that the discussion should focus on location of ventilation shafts, noise impacts, landscape and visual impacts, and other related issues.

Location of ventilation shafts

10. Some Members noted the concerns about ventilation shaft locations, in particular the one underneath the flyover at Hill Road and the one near Bonham Road Government Primary School. The project proponent team explained that as the Western District was a densely populated area, it was difficult to find suitable locations for the railway facilities, in particular the ventilation shafts. Ventilation shafts were an integral part of an underground railway system and had to be spaced at reasonable distance. The shafts should not be a cause of environmental concern since they would not be connected to combustion exhaust as some people might have misunderstood. The purpose of the shafts was to enable exchanges of air inside the stations and tunnels with the outside areas. As the trains were powered by electricity, combustion of fossil fuels was not required and hence no harmful or hazardous gases would be discharged. Given that the exhaust air speed was not high and suitable acoustic systems would be installed, the noise impact would be insignificant and would comply with relevant statutory requirements. They were aware of the concerns of the nearby sensitive receivers on the proposed locations. In order to ease their concerns, a number of briefings and site visits, including visits to ventilation facilities of current stations had been carried out. Moreover, they were working closely with relevant Government departments to address the concerns of the public with a view to working out the best possible solution from the engineering and social perspectives.

11. On the criteria of siting the ventilation shafts, the project proponent team indicated that the major considerations included the proximity to station, constructability and potential disruption to the surroundings during and after construction.

12. On whether the project proponent would consider changing the locations in response to public requests in the planning process, the project proponent team explained that extensive public consultation had been conducted in the district and the proposed locations of the ventilation shafts had taken into account the comments collected. A number of alternative sites for ventilation shaft had been explored to ensure that the proposed location would be the most suitable one. For the shaft at Hill Road, five other alternative sites had been explored before the current location was selected. The original proposed location was adjacent to the Hill Road Rest Garden. There were clear views that open space should not be occupied as far as possible in view of the limited open space in the district. Taking into account the public comments, constraints as well as engineering and operational considerations, the location underneath the flyover was considered a more preferred option. Some other alternatives, such as those near the seashore, were not feasible in view of the long distance from the station.

13. On some Members' concern that the quality of air extracted into the ventilation shaft underneath a flyover might be polluted, the project proponent team explained that while there might be minor problems in terms of dust near the flyover, the air quality in the district as a whole was acceptable. Moreover, measures would be taken to ensure that the indoor air quality inside railway stations and train compartments was maintained at an acceptable level.

14. Some Members noted concerns by a few public members about the relatively poor air quality felt inside the ventilation shaft during the visit to the Tiu Keng Leng Station. The project proponent team explained that all ventilation shafts were designed with compliance to relevant statutory criteria. The findings of comparative study showed that the air quality at the ventilation shafts was at par with the ambient environment and in full compliance with relevant environmental criteria. On the request of some Members, the project proponent provided a chart showing the comparison of Respirable Suspended Particulates (RSP) level measured in EPD's roadside station in Central and the RSP level measured in the dusting monitoring station set up by MTRC at the ventilation shaft exhaust on top of the Central Station. The information was circulated to Members for information after the meeting.

15. On the ventilation shaft near the Bonham Road Government Primary School, the project proponent team indicated that the shaft would be about 20 m from the school and the height would be about 10 to 12 m which should not have adverse environmental impacts, such as air quality or noise, on the school.

16. On measures to address the concerns of the school, the Highways

Department advised that the project proponent had undertaken during the objection interviews that the ventilation shaft would be oriented away from the school as far as possible and the project proponent was also exploring other possible mitigation measures.

17. On the standard distance between the ventilation shafts and openings of the adjacent building, the Highways Department advised that the minimum distance required was 5 m according to the guidelines of the Fire Services Department. In the preliminary design of the WIL, the distance between the ventilation shafts and openings of the adjacent building would be over 8 m. Moreover, the fans inside the ventilation shafts for railway tunnels would not normally be activated unless in the case of emergency, such as fire incidents.

18. On the provision of green features to improve the visual impacts of ventilation shafts, the Highways Department advised that the project proponent had undertaken in the EIA report to engage the local community to enhance the ventilation shaft structure and to design its external appearance to blend with the surroundings.

19. On the provision of chillers inside the ventilation shafts, the project proponent team confirmed that there would not be chillers inside the ventilation shafts and thus there would not be problems of temperature changes.

20. On some Members' suggestion of more close liaison with parties concerned, the project proponent team indicated that the importance of close liaison with the local community was well recognized. On-going efforts had been and would be made to explain the considerations and constraints.

Noise impacts

21. Some Members noted that the predicted mitigated construction noise level at a few sites was excessively high as shown in Table 3.8 of the EIA report. On the mechanism to ensure that the mitigation measures would be implemented, the project proponent team explained that the high noise level shown in the EIA report was based on realistic assessment and some isolated cases of occasional exceedances were inevitable in view of the densely built developments. The proposed mitigation measures had taken into account the experience in constructing other railway lines in congested area. As site practice was very important to ensure strict implementation of

mitigation measures, engineers involved in the planning stage would be part of the Environmental Team and would directly assist in the monitoring of the contractors. The mitigation requirements and contingency plans with targets and actions would be included in the contracts to ensure compliance. As shown in previous railway projects, they were committed to work closely with the local community and had confidence in implementing the proposed mitigation measures and contingency plans.

22. On the mechanism to address complaints and feedback on some high level noise exceedances which might not be promptly dealt with through the regular monitoring mechanism, the project proponent team explained that there were a number of channels through which the public could provide feedback and lodge complaints. The stakeholders nearby would be informed of the intense work period through notices and meetings. The public could provide their feedback through the community liaison group, MTR hotline or direct contact with site management staff. Based on experience, direct contact between the affected parties and the management staff had the advantage of active communication in addressing concerns for immediate actions. Similar to other railway projects, a liaison office at the work site and a community liaison group would be set up to ensure direct communications. On some Members' suggestion of setting up a designated complaint hotline for the project to facilitate direct reporting and prompt actions, the project proponent team confirmed that a customer hotline would be provided.

23. Some Members noted the arrangement of Indirect Technical Remedy for some noise sensitive receivers (i.e. improved glazing and air-conditioning for dwellings where residual noise impacts of 5 dB(A) or above would be expected for durations of one month or more) but considered that some residents affected by intermittent high noise level might not be eligible for the arrangement. The project proponent team explained that the arrangement was based on those adopted for the East Rail Extension project in view of the noise impacts on some residents close to the works area. For the WIL, Table 3.14 of the EIA report showed that 109 dwellings would require the provision of Indirect Technical Remedy. The additional mitigation measures would be installed well before the construction commenced. EPD advised that the arrangement was not a statutory requirement but a voluntary compensatory arrangement by the project proponent.

24. On the noise impacts on schools and institutions, the project proponent team confirmed that there were on-going close liaison with schools and institutions affected to ensure that the noise impacts would be kept to a minimum during important days, such as school examination periods and special events. Regarding

impacts on outdoor school activities of the Bonham Road Government Primary School, the anticipated noise impacts on the school was about 2 to 4 dB(A) in exceedance of the standard criterion of 65 dB(A) and the impact was not expected to be high.

25. Some Members noted that the predicted mitigation construction noise levels of 68 to 83 dB(A) at the noise sensitive receiver "Wai Lee Building" (Serial No. SYP 16) as shown in Table 3.12 of the EIA report was even higher than the predicted unmitigated levels of 45 to 85 dB(A) in Table 3.8 of the report. The project proponent team confirmed after the meeting that the predicted unmitigated noise levels in Table 3.8 were a typo and should be 81 to 95 dB(A).

Landscape and visual impacts

26. On tree preservation for registered Old and Valuable Trees in the works area at King George V Memorial Park, the project proponent team confirmed that there would not be construction works that would affect the Old and Valuable Trees as well as large or tall trees of large size. Trees which would be affected by construction works were only common species in small to medium sizes.

27. Members noted that the proposed location of the Kennedy Town Station had been changed and a no-built zone would be designated in order to protect the tree walls around Forbes Street Temporary Playground. On the impacts of piling works on the tree walls, the project proponent team confirmed that percussive piling would not be used as only bored piling would be used for erection of the walls of the station. Site audits would be conducted to ensure that good site practice would be implemented to minimize the potential vibration impact by bored piling on the tree walls. Vibration monitoring would be conducted during the tunnel boring and blasting works to ensure that immediate actions could be taken wherever necessary. The underground water level would also be monitored to ensure the stability of the wall structure and health of the trees. It was also confirmed that the no-built zone around the tree walls would be well beyond the standard requirement of 2 m outside the canopy area of the trees.

28. The project proponent team confirmed that they would take on board the suggestions made by a non-Subcommittee Member that a protection/buffer zone would be provided to reduce impacts to the roots of the tree walls and registered Old and Valuable Trees, and a certified arborist would be appointed to advise on and

monitor the implementation of mitigation measures.

29. On the tree replanting programme, the project proponent team indicated that the trees would be replanted within the Central and Western District. Advice from an expert consultant had been sought on the detailed plan. The target was to achieve a higher successful rate of replanting. Meetings were being held with green groups on the detailed locations for replanting the trees and the final details would be posted onto the web.

Other related Issues

30. On the use of the former Kennedy Town incinerator site as a temporary works area for WIL and related environmental impacts, EPD advised that actions were being carried out by the Civil Engineering and Development Department to demolish the disused incinerator and take follow-up actions on the clearance of the site in accordance with the conditions in a separate Environmental Permit. During the interim use of the site as temporary works area for WIL, a concrete capping layer of 200 mm thick would be kept on the site. The project proponent had to ensure that the capping layer would not be damaged such that the soil underneath would not be exposed. Soil remediation works for the incinerator site would be conducted after the interim use.

31. On the re-provisioning of the public open space of about 13,500 m^2 affected by the construction, the project proponent team explained that the Kennedy Town Station would be moved to the current site of public swimming pool to avoid impacts on the tree walls. The site would also include a public transport interchange and some new landscape areas. A new swimming pool would be reprovisioned at the Kennedy Town Praya. There would be an overall increase in public open area of a few hundred square metres after completion of the project. They were working closely with the Leisure and Cultural Services Department on re-provisioning of the facilities. The Central and Western District Council had also been briefed several times to ensure high degree of transparency on the project.

32. Some Members suggested that adequate measures should be taken to avoid flooding as the slopes near the King George V Memorial Park were quite steep and heavy streams of water might be formed along Eastern Street and Hospital Road during rainy seasons. The project proponent team noted the suggestion and indicated that specifications would be included in the contracts to ensure that appropriate

precautionary measures would be taken and there would also be close monitoring by engineering and site staff.

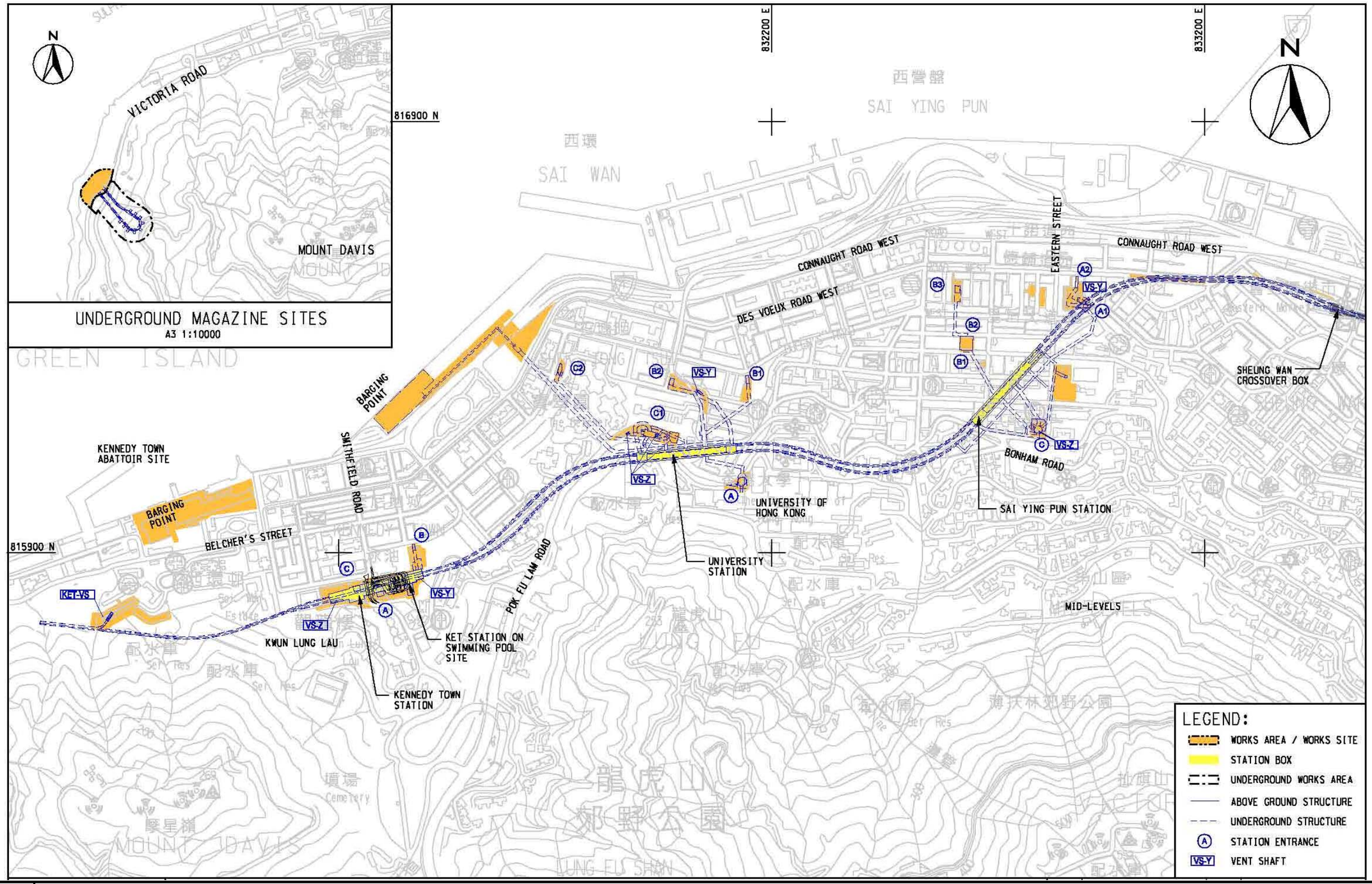
RECOMMENDATION OF THE SUBCOMMITTEE

33. The Subcommittee agreed to recommend to the full Council that the EIA report could be endorsed with the following conditions –

(a) the project proponent should appoint a certified arborist for the project to advise on, monitor and ensure proper implementation of measures for protecting the trees affected by the project, in particular the tree walls and registered Old and Valuable Trees around Forbes Street Temporary Playground and King George V Memorial Park as well as trees to be transplanted; and

(b) the project proponent should set up community liaison groups comprising representatives of concerned and affected parties, including owners' corporations, management offices, local committees and schools in the affected areas, to facilitate communications, enquiries and complaints handlings on all environmental issues. A designated complaint hotline should also be set up for the project to address such concerns and complaints in an efficient manner.

EIA Subcommittee Secretariat
November 2008



West Island Line Environmental Impact Assessment – West Island Line Overall View

(This figure was prepared based on Figure 1.1 of the submitted EIA report)