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ACE-EIA Paper 4/2017
For advice on 11 September 2017

Environmental Impact Assessment Ordinance (Cap. 499)
Environmental Impact Assessment Report
Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot

PURPOSE

This paper presents the key findings and recommendations of the Environmental Impact Assessment (EIA) report for Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot (hereafter known as "the Project") submitted under section 6(2) of the Environmental Impact Assessment Ordinance (EIAO) (Application No. EIA-252/2017). MTR Corporation Limited (MTRCL) (the applicant) and their consultants will present the EIA report at the meeting of EIA Subcommittee.

ADVICE SOUGHT

2. Members' views are sought on the findings and recommendations of the EIA report.

BACKGROUND

3. The existing Siu Ho Wan Depot (SHD) occupies about 30 hectares of land at North Lantau and is a potential site for housing identified in the 2015, 2016 and 2017 Policy Addresses. The Project aims to provide not less than 14,000 residential units in the medium to long term, with a new railway station on the Tung Chung Line (TCL) to serve the development as shown in **Figure 1**.

4. As it is essential to maintain the normal operation of the depot at all times in order to provide a smooth train service to the public including the construction stage of

the residential development, the applicant intends to carry out depot reconfiguration and deck over the existing depot in stages so as to supply land for topside development. The topside development will be implemented in phases over a period of approximately 18 years starting from 2019, with the first phase of population intake scheduled in 2026.

5. For the overall development at SHD, the applicant decided to conduct two EIA studies concurrently to cover the topside development works and depot replanning works respectively. They are:

(i) the EIA report for Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot (Application No. EIA-252/2017); and

(ii) the EIA report for Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works (Application No. EIA-253/2017) (to be discussed separately under ACE-EIA Paper 5/2017).

6. The applicant has submitted the EIA report for the Project and the Director of Environmental Protection, in consultation with the relevant authorities, considers that the EIA report meets the requirements in the EIA Study Brief and the Technical Memorandum on EIA Process (TM), for the purpose of exhibiting the report for public inspection, under Section 7(4) of the EIAO.

NEED FOR THE PROJECT

7. Owing to a shortage of housing supply in Hong Kong, the existing SHD has been identified by the recent Policy Addresses as a potential site to provide housing supply to meet future housing needs. The Project also supports the Hong Kong 2030+ strategic planning objective of building a sustainable community served by environmentally friendly rail transport. The Project optimises the utilization of railway land to fulfill the future housing, economic and social development needs from technical and community sustainability perspectives.

DESCRIPTION OF THE PROJECT

8. As the Project covers an area of about 30 ha and is proposed to provide about 14,000 flats with schools, kindergartens and a shopping facility atop of the entire

existing SHD, it constitutes a Schedule 3 (Item 1 [1]) Designated Project (DP) under the EIAO. The Project also covers the construction of a sewage pumping station which is a DP under Item F.3(b)[2], Schedule 2 of the EIAO.

Environmental Benefits

9. According to the EIA report, the major environmental benefits with the Project in place include:

(i) provision of housing developments on an existing railway depot land without disturbing any natural habitat of flora and fauna;

(ii) transformation of Siu Ho Wan from low-rise industrial to an urban node with greening, including 30% of the podium deck planted with trees, shrubs or other plants to enhance landscape value; and

(iii) adaptation of sustainable building design (BEAM Plus) to reap the benefits of better indoor environment, minimize pollution to the external environment, provide energy-efficient buildings and reduce unsustainable consumption of scarce resources.

CONSIDERATION OF ALTERNATIVE OPTIONS

10. The EIA report has considered various alternative options for the development of the Project, including land use, building disposition, construction method, etc. to achieve the objectives of the project and to avoid and minimize environmental impacts arising from the Project. The recommended options of various project items have taken into account environmental considerations, site constraints, comments received from Government departments and the public, including those received during the public engagement exercises of the Project. The key considerations and outcomes are highlighted below.

Avoidance and Minimisation of Impacts

11. According to the EIA report, avoidance and minimisation of environmental impacts are the key considerations, among others, in the planning, design and

[1] Item 1 of Schedule 3 – "Engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000".

[2] Item F.3(b) of Part I of Schedule 2 – "A sewage pumping station with an installed capacity of more than 2,000 m^3 per day and a boundary of which is less than 150 from an existing or planned residential area or educational institution".

operation of the Project. Some of the key approaches which are adopted to avoid and minimize the environmental impacts are summarized as follows:

(i) the proposed development and its associated infrastructures are all land-based and no new reclamation and marine works would be carried out, avoiding impact to the marine environment;

(ii) the residential blocks fronting the North Lantau Highway (NHL), TCL and Airport Express Line (AEL) would adopt self-protecting building design such as using non-noise sensitive facades, acoustic balconies and/or acoustic windows to face the noise sources to minimize adverse noise impact;

(iii) the development would not encroach onto recognized sites of conservation importance including Lantau North (Extension) Country Park, Tai Ho Stream Site of Special Scientific Interest, Conservation Area and Tai Ho Ecologically Important Stream and Coastal Protection Area; and

(iv) the development has avoided encroachment onto Consultation Zone (CZ) of Siu Ho Wan Water Treatment Works to avoid any hazard implications.

SPECIFIC ENVIRONMEANTL ASPECTS TO HIGHLIGHT

Noise

12. The major noise concern is traffic noise from the nearby heavily trafficked NLH and railway noise from TCL and AEL which may affect the planned noise sensitive receivers (NSRs) at the proposed development during operation phase.

13. The EIA report concluded that with suitable building disposition and the use of self-protecting building design including measures such as non-noise sensitive facades, acoustic windows and acoustic balconies, the potential traffic noise impacts at all planned NSRs would comply with the respective noise criteria.

14. As for railway noise, the provision of noise canopies protruding from the southern podium of the proposed development would mitigate the rail noise at the residential developments to within the noise criteria. Temporary noise canopies and cantilever noise barriers along the northern edge of the podium would be provided to reduce the potential construction and depot noise impacts to the earlier phases of SHD

Topside Development.

15. For aircraft noise, the proposed development falls outside the NEF 25 contours as detailed in the approved EIA report for Expansion of Hong Kong International Airport into a Three-Runway System (3RS). Adverse aircraft noise impact is therefore not anticipated.

Air Quality

16. During the construction phase, the implementation of dust control measures including water spraying and covering dusty stockpiled materials would control dust levels at representative Air Sensitive Receivers (ASRs) to within the established criteria for Total Suspended Particulates, Respirable Suspended Particulates and Fine Suspended Particulates.

17. During the operation phase, various emissions from the nearby major sources including NLH, 3RS, the Organic Waste Treatment Facilities – Phase 1, the North Lantau Refuse Transfer Station as well as fugitive dust emission from construction of the concurrent projects have been cumulatively assessed in the EIA Report. Results indicate that the predicted concentrations of key representative pollutants at representative ASRs would comply with the Air Quality Objectives. Potential odour impact arising from the sewage pumping station within the proposed development to the ASRs is predicted to be negligible with enclosure and installation of odour control equipment.

Landscape and Visual

18. The project falls within the existing footprint of the SHD with low/moderate landscape value and sensitivity. Major landscape resources in the vicinity including the water body at Tai Ho Bay and woodland on slopes between NLH and Lantau North (Extension) Country Park will not be affected by the proposed development.

19. Views of the proposed development from visually sensitive receivers, including Pak Mong Village, are generally screened by existing vegetation, topography and road infrastructures. With the implementation of the proposed mitigation measures including re-instatement of excavated areas, provision of aesthetic design to developments noise mitigation measures and structures, provision of compensatory and buffer plantings, the residual impact at visually sensitive receivers is expected to be insignificant to moderate during operation.

Other Environmental Issues

20. Other environmental issues including sewerage, water quality, ecology and fisheries, land contamination, waste management implication and hazard to life have also been addressed in the EIA report. With the implementation of the recommended mitigation measures, the Project will comply with the relevant requirements under the TM.

ENVIRONMENTAL MONTIORING AND AUDIT (EM&A)

21. The EIA report includes an EM&A Manual which recommends an EM&A programme during the construction and operation phases of the Project. Recommended EM&A requirements cover noise, air quality, landscape and visual, sewage, water quality, ecology and fisheries, waste management and hazard to life issues.

PUBLIC CONSULTATION

22. The applicant has made the EIA report, EM&A Manual and Executive Summary available for public inspection under the EIAO from 14 July 2017 to 12 August 2017. During this inspection period, EPD received a total of six public comments. The main concerns are summarized in a gist to be provided separately.

September 2017
Environmental Assessment Division
Environmental Protection Department

Project Title:	Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot	EIA Application No.: EIA-252/2017	
Figure 1:	**Development Scheme of the Project** [Remarks: This figures is prepared based on Figure No. 1.2 of the EIA Executive Summary.]		