


MTR Corporation Limited

Kwan Tong Line Extension (KTE)

Alternative Proposal for Dust and Noise Monitoring  
Stations at CD2 and CN4 – Yee Fu Building (Revision B)

Verified by: 

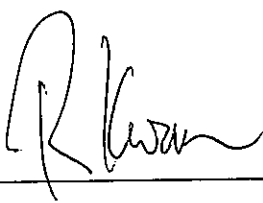
Position: Independent Environmental Checker

Date: 25 Feb 2013

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Position: Environmental Team Leader

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## 1. INTRODUCTION

As specified in the approved KTE EM&A Manual Table 4.1 and Table 5.1, construction dust and noise monitoring should be carried out at CD2 and CN4 – Yee Fu Building. The access to Yee Fu Building has been denied by the management office since early December 2012 and this proposal aims to propose alternative monitoring locations for certification by the Environmental Team Leader and verification by the Independent Environmental Checker before submission to EPD for approval.

## 2. PROPOSED ALTERNATIVE MONITORING LOCATIONS

In accordance with EM&A Manual Clauses 4.2.2.3 and 5.2.3.3, alternative dust or noise monitoring locations should be chosen based on the following criteria:-

- The monitoring location should be close to the major construction site activities which are likely to be subjected to construction dust or noise impacts;
- The monitoring location should be an air or noise sensitive receiver as defined in the EIAO-TM; and
- The assurance of the minimal disturbance to the occupants and working under a safe condition during monitoring.

Based on the criteria above, No. 21 Valley Road being the nearest sensitive receiver along the first layer has been considered as the alternative monitoring location. A site visit to the 3-storey high residential building has been conducted on 19 Dec 2012. There is no suitable electricity supply identified at the roof for the dust monitoring equipment. Referring to **Figures 1a, 1b & 1c**, the Homantin Student Halls of Residence of The Hong Kong Polytechnic University adjacent to No. 21 Valley Road is likely to be subjected to worse environmental impacts due to its higher elevation and wider angle for the direct line of sight than No. 21 Valley Road. As such, alternative monitoring location at No. 21 Valley Road was not further pursued, and the student halls being the next sensitive receiver along the first layer has been considered as the alternative monitoring location, which satisfies the criteria mentioned above.

The student halls were considered as a concurrent project at the time of the EIA study. With consideration of the construction programme, Yee Fu Building was considered more representative and selected as the assessment point in the EIA Report. Since both Yee Fu Building and the student halls are along the first layer and at approximately equal distance to the construction site boundary along Yan Fung Street, there is no significant difference anticipated in construction environmental impact experienced by the Yee Fu Building and the student halls.

In addition, access has also been granted by the management office of the student halls and electricity supply can be provided at roof level for the dust monitoring equipment. All dust monitoring equipment would operate under safe condition and with minimal disturbance to the public and the occupants.

Figure 1a View from No. 21 Valley Road (to HOM work site)



Figure 1b View from No. 21 Valley Road (to the student halls)

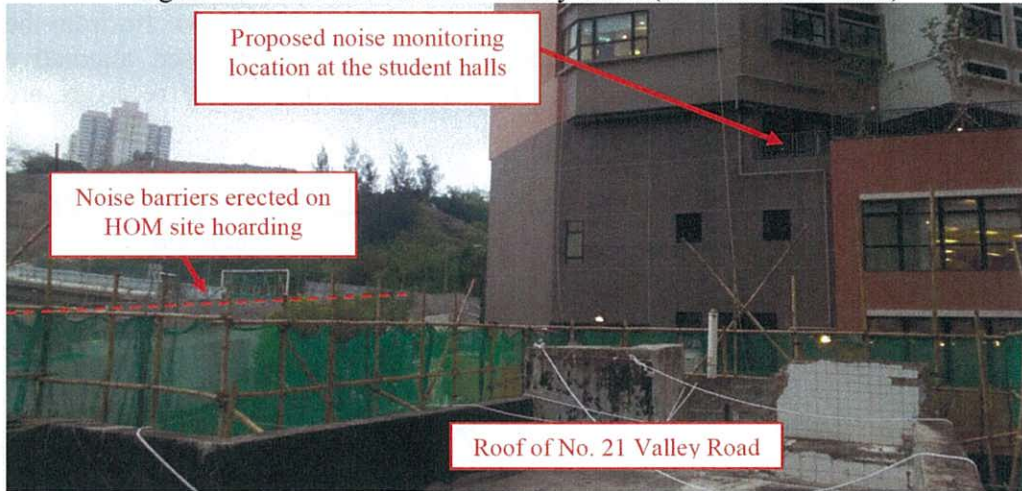


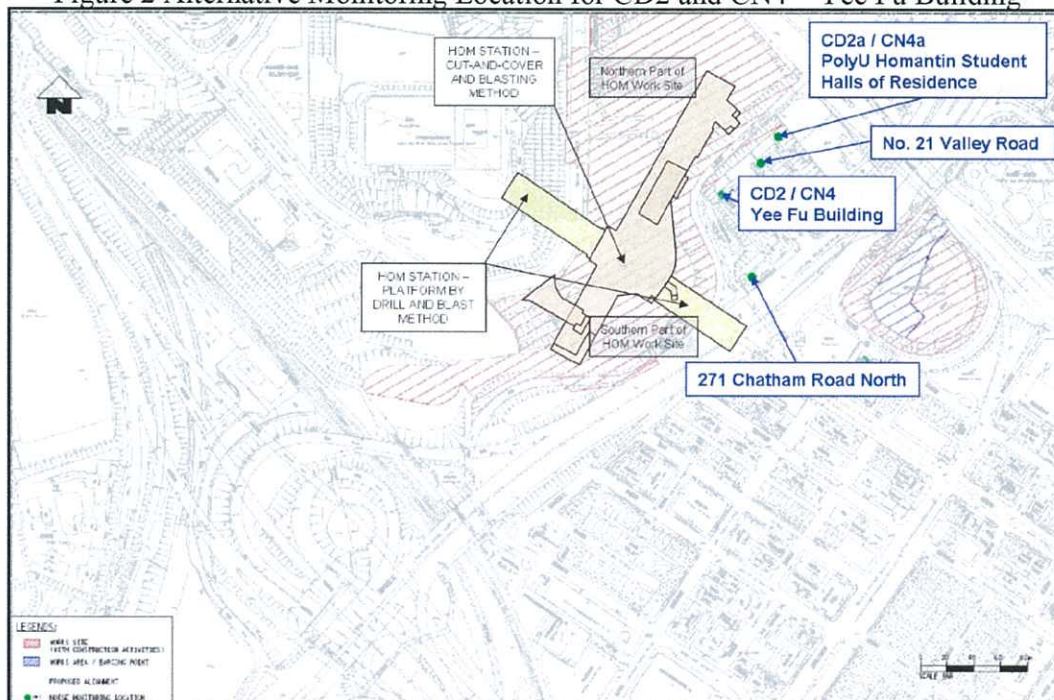
Figure 1c 2/F Platform of the Homantin Student Halls of Residence



During the initial screening of the first layer of sensitive receivers, No. 271 Chatham Road North has also been considered, which is nearer to southern part and farther to northern part of HOM work site in comparison with the Homantin Student Halls of Residence as indicated in **Figure 2**. With reference to the EIA Report S3.6.3.9, the rock will be excavated by drill-and-blast method as well as by mechanical excavation (i.e. using hydraulic breakers). As the southern part of HOM work site will be dominated by drill-and-blast method while the northern part will be dominated by mechanical excavation, it is envisaged that the student halls will be subjected to worse environmental impacts and more representative to the construction environmental impact experienced by Yee Fu Building than No. 271 Chatham Road North. As such, alternative monitoring location at No. 271 Chatham Road North was not further pursued.

The alternative location for CD2 and CN4 – Yee Fu Building is therefore proposed at the Homantin Student Halls of Residence of The Hong Kong Polytechnic University. The dust monitoring will be conducted by using a High Volume Sampler which will be positioned at a minimum 2m separation from the parapet wall while the noise monitoring will be conducted at a point 1m from the exterior of the facade and 1.2m above ground at the proposed alternative monitoring location. Locations of all the first layer of sensitive receivers are shown in **Figure 2**.

Figure 2 Alternative Monitoring Location for CD2 and CN4 – Yee Fu Building

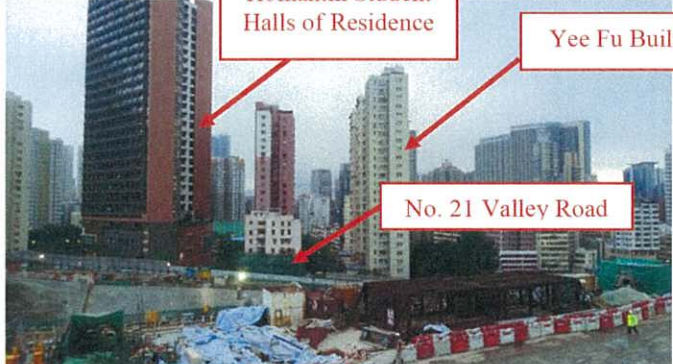


### 3. CONCLUSION

Based on the criteria as stated in the KTE EM&A Manual, the proposed alternative monitoring location to replace CD2 and CN4 – Yee Fu Building as

shown in Table 1 is considered appropriate for the monitoring of both construction dust and noise impacts during construction phase of the KTE Project.

Table 1 Proposed Alternative Monitoring Location to replace CD2 and CN4 – Yee Fu Building

ID No.	Alternative Dust & Noise Monitoring Location	Photograph
CD2a / CN4a	Homantin Student Halls of Residence, The Hong Kong Polytechnic University	

As construction works at HOM work site have already been commenced since June 2011, baseline monitoring in accordance with the KTE EM&A Manual cannot be conducted.

With due consideration that the ambient dust level is attributed to both regional and local sources, and both the original and proposed alternative locations (CD2 & CD2a) are at approximately equal distance to Chatham Road North which is the major local source of ambient dust level, it is considered adequate to adopt the original dust baseline data at CD2 for the proposed alternative monitoring location at CD2a. As such, the Event / Action Plan on construction dust would not be affected.

A noise baseline check of 30-minute measurement at the proposed alternative monitoring location (CN4a) was conducted during noon time when no construction work was carried out in the vicinity. The baseline check result is summarized in Table 2. As the result is below the range of the respective noise baseline at the original monitoring location (CN4), to be conservative, background noise correction will not be carried out for future impact monitoring at CN4a. As such, the Event / Action Plan on construction noise would not be affected.

Table 2 Noise Baseline Check at CN4a

Time Period	Baseline Value at CN4a, dB(A)	Baseline Value at CN4, dB(A)
12:30-13:00	66	70-71