

Submission from the Building and Construction Department of the City University of Hong Kong

According to the administration's paper on "Measure to address noise impact of existing roads", the programme which certainly benefits residents subject to noise levels of 70dBA or above is strongly recommended. In this position paper, only the retrofitting noise barrier work is discussed in terms of measures to improve the effectiveness.

It was found that many existing barriers that were not improperly designed and installed could not achieve their expected noise reduction due to insufficient height, insufficient length, and gaps (see figures 1 to 3). In order to ensure that the residents do get the benefits from the programme, some suggestions are listed below.

- The detail design and on-site installations must be approved by qualified acoustic engineers to ensure the effectiveness of noise barriers.
- There should be a post-commissioning test to ensure whether the noise barriers can achieve their design noise reduction capability for future design reference.
- It should be performed by independent laboratory with recognized quality assurance certificates. (that has been implemented in most civil projects but not required in previous barrier projects in which only the overall barrier length and height were checked.)



Figure 1 Noise barrier with insufficient height at Cheung Ching Estate



Figure 2 Noise barrier with insufficient Length at Lung Cheung Road

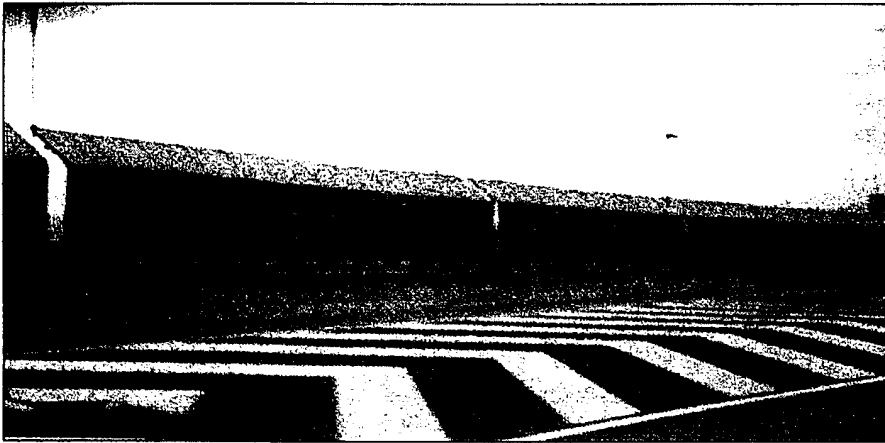


Figure 3 Gaps found in the noise barrier near Lai King Estate

Dr. Raymond Lee
Lecturer
Dept. of Building and Construction
City University of Hong Kong