Provision of Service for Collection of Information on Quieter Construction Methods and Innovative Noise Mitigation Measures

ANEWR
Environmental & I.T. Consultants

CLIENT: ENVIRONMENTAL PROTECTION DEPARTMENT (EPD)

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TAGS: QUIETER CONSTRUCTION METHODS, NOISE MITIGATION MEASURES

Background

The EPD received more than a thousand construction noise complaints annually in the past decade. Currently, there are various state-of-the-art quieter construction methods, equipment and noise mitigation measures being implemented overseas. The Project explored the performance and practicality of these methods, equipment and mitigation measures to various construction sites in Hong Kong in reducing noise impact.

Our Roles

ANewR was commissioned by EPD to (i) study and evaluate the performance and practicability of various quiet construction methods/equipment that have been implemented overseas and (ii) study and evaluate the potential feasibilities of applying innovative demolition methods that have been adopted in Japan, to demolish buildings in Hong Kong, with particular focus placed on “fully enclosed” and “partially enclosed” building demolition methods.

Key Values to Client

ANewR provided detailed findings regarding the cost-effectiveness of seven state-of-the-art quieter construction methods/equipment including the water jet system, silent piling, balloon type noise barrier and noise enclosure, chemical agents for rocks/concrete breaking, mini breakers, vibro rippers and pipe jacking. ANewR also conducted an in-depth study of the feasibilities of innovative demolition methods that have been adopted in Japan such as “Hat Down” Method, “Reserve Construction” Method, “QB Cut-off” Method, and “Cut & Down” Method, to demolish buildings in Hong Kong. The findings of the study enabled the EPD to introduce more environmentally-friendly construction and demolition methods/equipment to the industry, and provide detailed technical parameters for future reference and consideration as well.