

# Sustainable Construction

## Modular Integrated Construction (MiC)

MiC will be adopted in the following public housing projects including -

- (1) A 12-storey domestic block (about 200 units) at Tung Chung Area 99;
- (2) A 33-storey domestic block (about 400 units) at Tak Tin Street, Kwun Tong; and
- (3) Anderson Road Quarry Sites R2-6 & R2-7 - this project involves two sites. One of the sites comprises two 28-storey domestic blocks (about 1,000 units). The other site comprises a 17-storey domestic block (about 400 units).

We spare no effort to develop the technology on MiC. We had collaborated with Research & Development institute to develop MiC 2.0 system, in order to enhance the buildability, safety, structural efficiency and speed of MiC construction. We also collaborated with academia to develop Key Performance Indicators (KPIs) which is suitable for MiC in Housing Authority, assess logistic constraints and develop guideline to facilitate early application of wide load permit from Transport Department.



Tak Tin Street, Kwun Tong



Tung Chung Area 99



Anderson Road Quarry Sites R2-6 & R2-7

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## Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP)

We are actively exploring the possibility of widely adopting MiMEP in public housing development. Trial run have been conducted to investigate the actual benefits of MiMEP and its suitability in public housing development. MiMEP is a construction method that involves integrating various building services components into prefabricated modules offsite. These modules are then transported to the construction site for connection and completion of building services installations. The adoption of MiMEP allows for labour intensive works to be migrated to the offsite workshop, resulting in a shorter construction period on site, improved productivity and built quality, enhanced site safety and reduced construction waste.



Prefabricated Modules of Building Services Components



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## Green Power Provision

Contractors normally used diesel generators on HA's construction sites, resulting in significant carbon emissions, environmental pollution and health hazards. We are committed to reducing the environmental impact of our construction projects and have taken measures to reduce the use of diesel generators on site, including:

1. Early liaison with the power company at the design stage for provision of temporary power on site. This will ensure timely power supply and reduce the use of diesel generators; and
2. Exploration of alternative technologies (such as battery energy storage system) in case of insufficient grid power supply. These technologies emit significantly lower level of carbon and align with our goal of promoting sustainable construction.



Battery Energy Storage System