



Co-creating MiC Opportunities



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8 July 2020

JCDISI Social Innovation Symposium “Transitional Social Housing
– Deliver with Expediency and Decency”

- 
1. Journey to MiC
 2. The Q-Camps
 - an imminent task to respond the HK COVID-19 crisis
 - Team Work
 - MiC Application
 - Logistics and Delivery
 - Design Considerations
 - Second Life
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Contents

An aerial photograph of a city, likely Hong Kong, showing a dense grid of buildings. A semi-transparent blue rectangular overlay covers the middle-left portion of the image. A large, bold, blue number '1' is positioned in the top-right corner of the image.

1

Journey to MiC

Advancement of Building Industry

Manual
Labour

Mechanization

Prefabrication

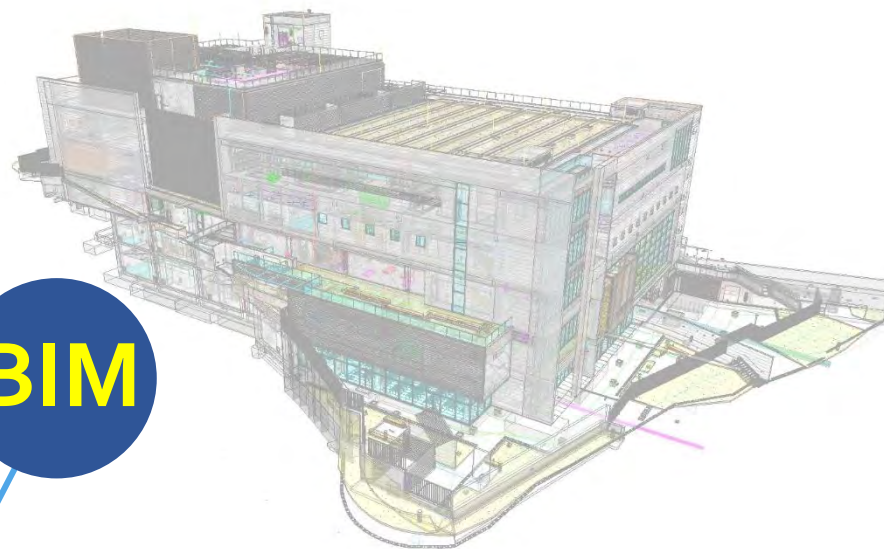
BIM

Industrialization of
Construction Process
MiC

Policy Address

"... the Government is proactively **promoting** the adoption of technology and **innovative construction methods** ..."

BIM



2017

2018 ...

9.2018

Policy Address

"... make changes by implementing

"Construction 2.0" advocating "Innovation", "Professionalisation" and "Revitalisation"..."

MiC

"Construction 2.0"
published

Construction 2.0

Time to change



Prefabrication



The Transformer

Small-scale
Projects
with DfMA,
etc.

2018 - 2019 ...

DfMA



Sai Wan Ho Self-Service Library Station

DfMA



The Serpentine

DSQ for the FSD, TKO

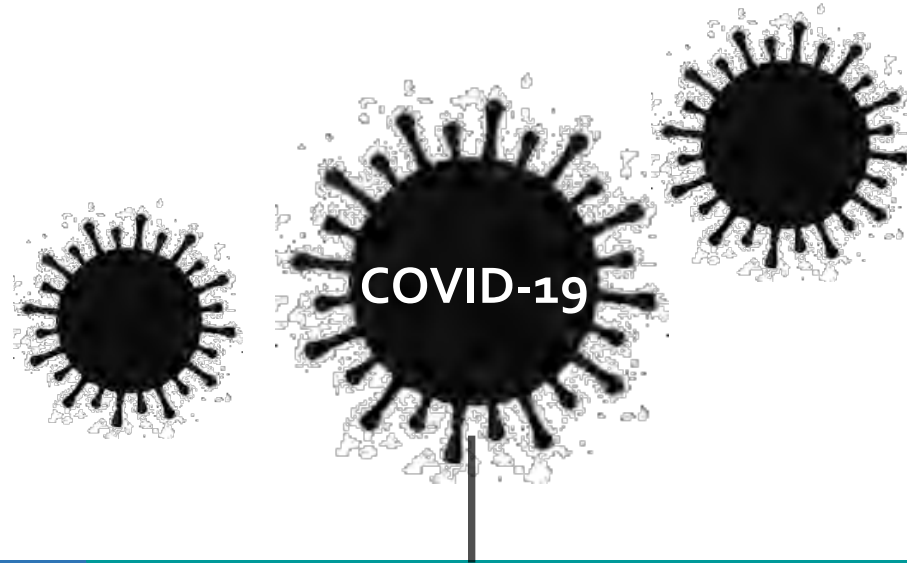
MiC Pilot Schemes



2018 - 2019

*MiC Display Centre, ZCP*

Public Sector



2019

2020

2021 ...



Social Housing, Yen Chow Street



Innocell, Science Park



HKU WCH Student Residence

Private Sector



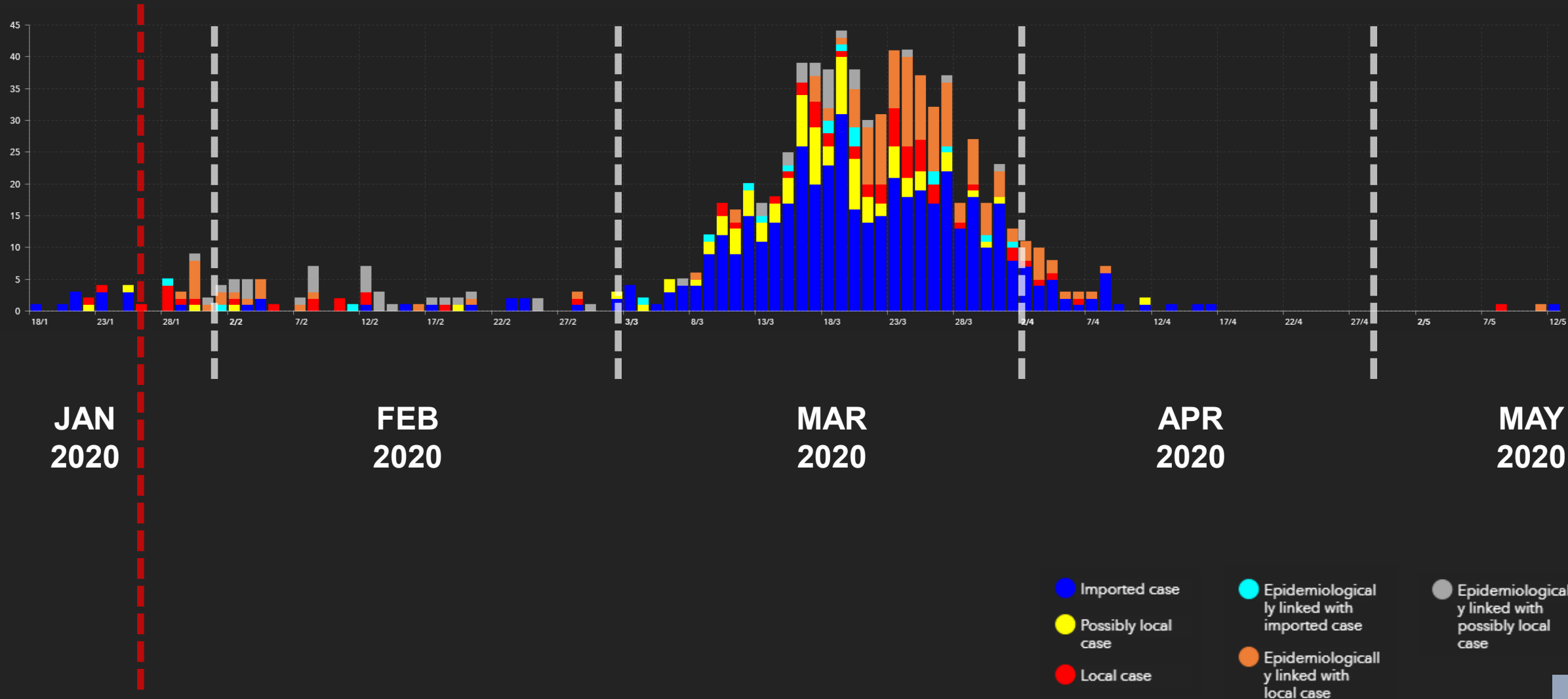
2

The Q-Camps

an imminent task to respond the HK COVID-19 crisis

Epidemic curve on confirmed/probable cases of COVID-19 in Hong Kong

Late Jan: ArchSD was commissioned



The New MiC Temporary Quarantine Camps



LEI YUE MUN PARK – BASKETBALL COURT



118 Units in 26 days

Commencement: 3 Feb 2020

Completion: 28 Feb 2020

With 9,000 Man-days and 109,000 Man-hours

Main Contractor:
China State Construction
Engineering (Hong Kong)
Ltd

Architectural Designer:
China State Construction
Int'l Medical Industry Dev.
Co. Ltd.

With 16,700 Man-days and 200,000 Man-hours

Architectural Designer:
China State Construction
Int'l Medical Industry Dev.
Co. Ltd.



120 Units in 66 days

Commencement: 17 Feb 2020

Completion: 22 Apr 2020

With 3,600 Man-days and 36,000 Man-hours

Main Contractor:
Hip Hing Engineering
Company Limited

Architectural Designer:
Leigh & Orange Ltd.



99 Units in 77 days

Commencement: 14 Feb 2020

Completion: 30 Apr 2020

With 5,200 Man-days and 48,000 Man-hours



Main Contractor:
Paul Y. Construction
Company, Limited

Architectural Designer:
LWK + PARTNERS



700 Units (under construction)

Commencement: Apr 2020

Completion: mid July 2020 (anticipated)



Main Contractor:
China State Construction
Engineering (HK) Ltd.

Architectural Designer:
Wong & Ouyang (HK) Ltd.

An aerial, high-angle view of a multi-story residential building. The building has a complex structure with many windows and balconies. A large section of the building is covered in scaffolding, indicating ongoing construction or renovation work. The courtyard area is visible, and the overall scene is somewhat desaturated, giving it a muted, artistic feel.

Team Work

- Extremely tight schedule
- Commitment and resolution
- High performing team
- Fortitude, robustness and compassion

Commitment and Resolution

Design stage - Collaboration with professionals & technical experts



High Performing Team

Design and construction stage - Collaboration between project team, relevant government bodies and contractors



Fortitude, Robustness and Compassion

Construction stage



Fortitude, Robustness and Compassion

Construction stage



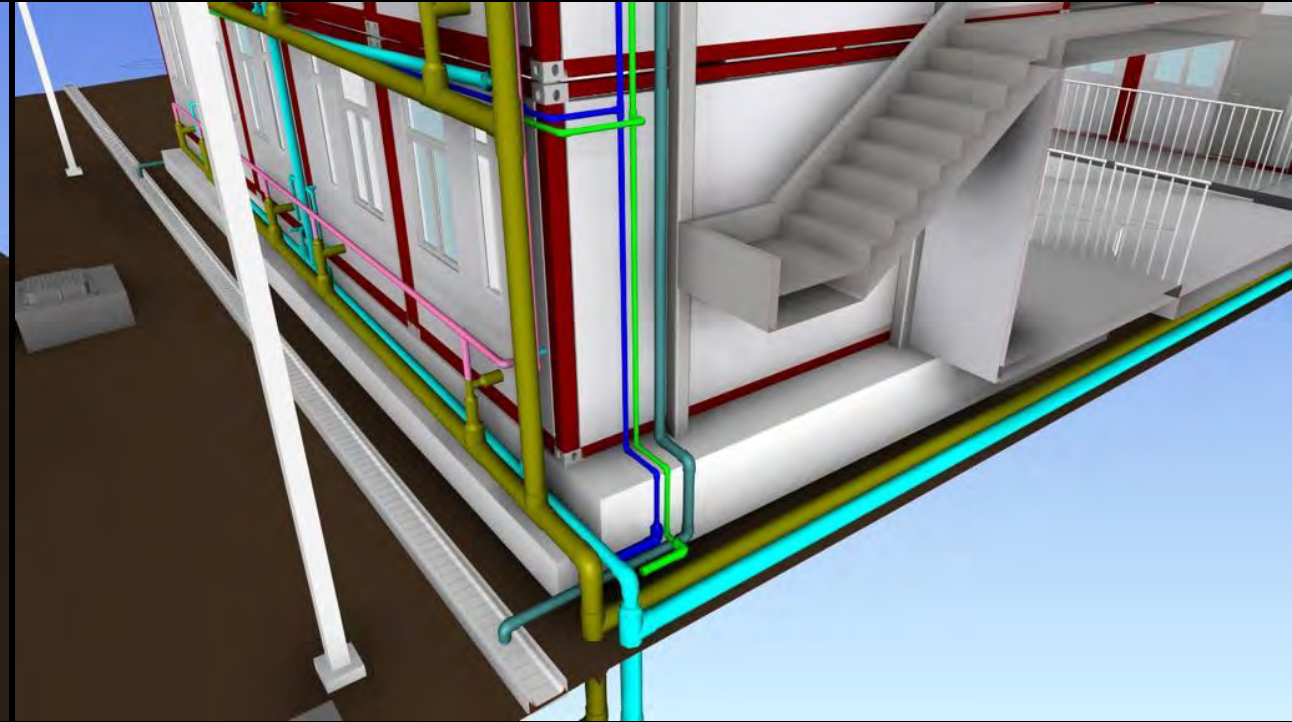
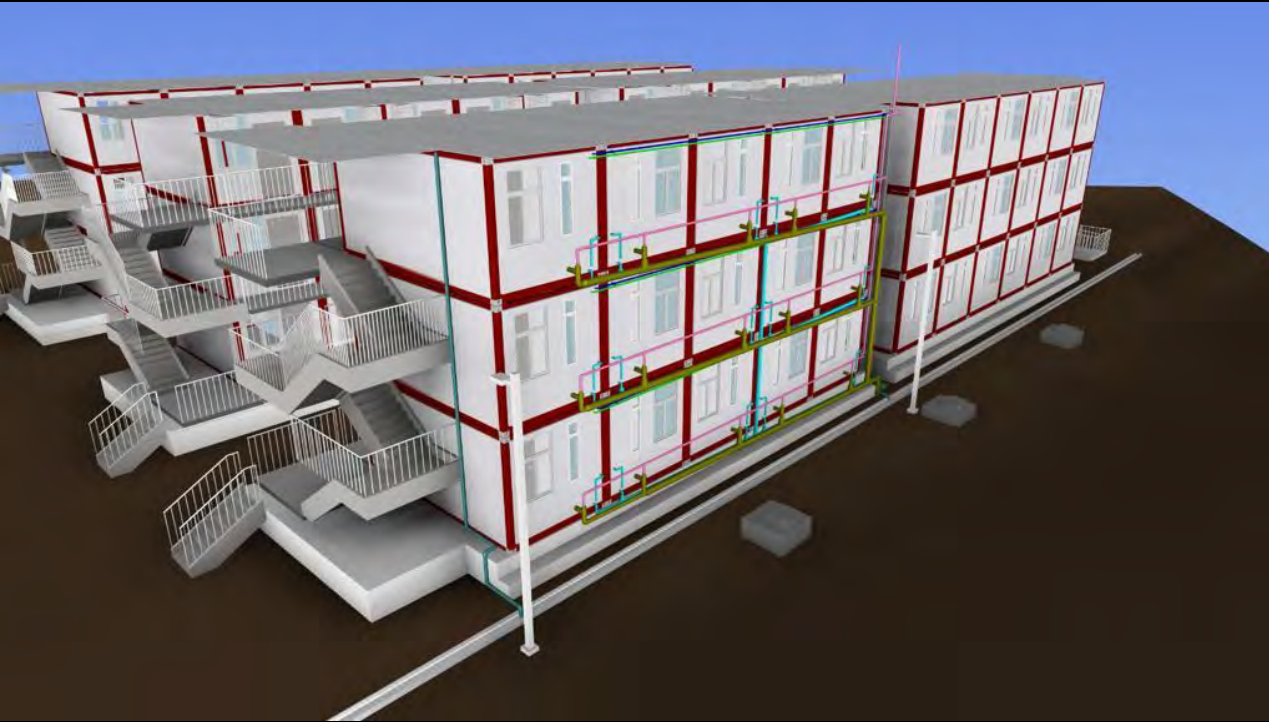


MiC Application

MiC was chosen for its key benefit:

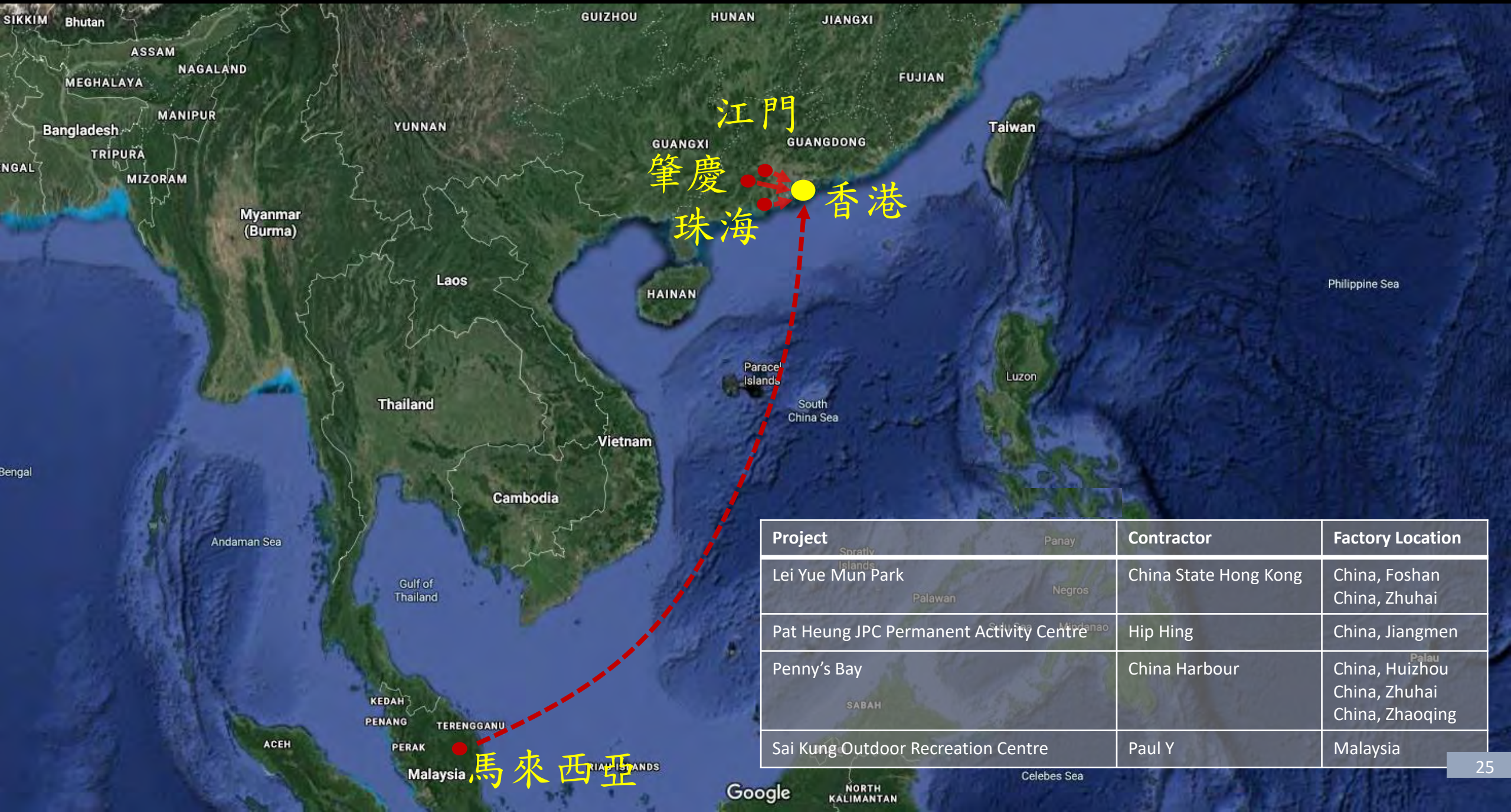
shortening construction time and deliver **quality output**

BIM



An aerial photograph of a city, likely New York City, showing a dense grid of buildings. A semi-transparent blue overlay covers the entire image, and the text "Logistics & Delivery" is centered in a blue serif font.

Logistics & Delivery



Project	Contractor	Factory Location
Lei Yue Mun Park	China State Hong Kong	China, Foshan China, Zhuhai
Pat Heung JPC Permanent Activity Centre	Hip Hing	China, Jiangmen
Penny's Bay	China Harbour	China, Huizhou China, Zhuhai China, Zhaoqing
Sai Kung Outdoor Recreation Centre	Paul Y	Malaysia



Design Consideration

Health & Hygiene Consideration



Graphic Design Consideration

Sai Kung Outdoor Recreation Centre



Lei Yue Mun Park



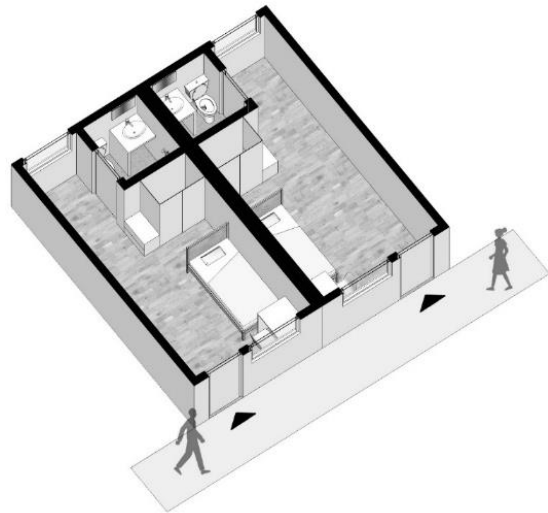
Pat Heung JPC Permanent Activity Centre



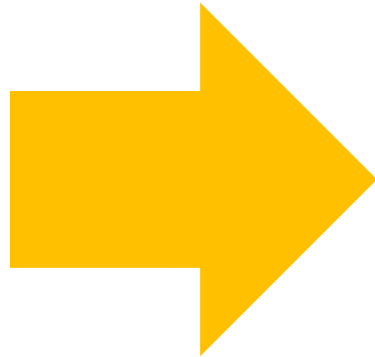
An aerial, high-angle view of a dense urban courtyard. The scene is dominated by multi-story apartment buildings with light-colored facades and numerous windows. Balconies with metal railings are visible on several floors, some with laundry hanging out to dry. The courtyard floor is paved and contains some small structures or utility boxes. The overall atmosphere is one of a tightly packed, lived-in neighborhood.

Second Life

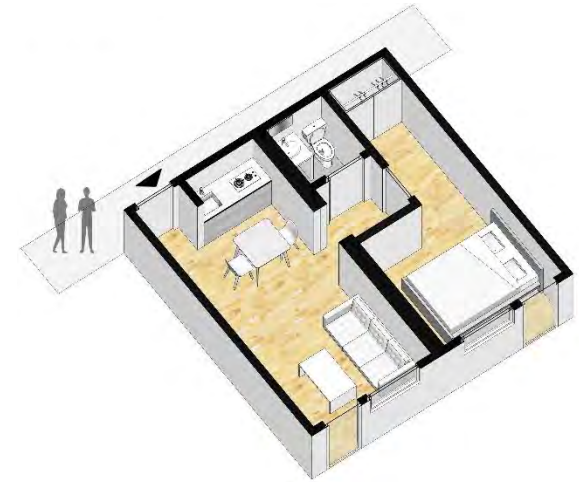
Possibilities Such as...



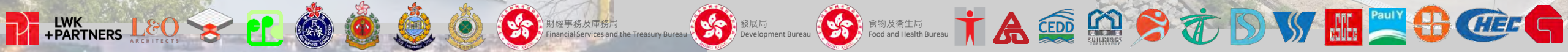
QUARANTINE UNIT



LIVEABLE UNIT



HOLIDAY CAMP





3

More MiC – Projects & Studies



Projects

Pak Shing Kok Departmental Staff Quarter . under construction

Total: ~3,800 MiC modules

Residential Care Home for the Elderly, KTN . under construction



Total: ~1,800 MiC modules

TKO Fire Station cum. Ambulance Depot w. Quarters

under construction

Total: ~660 MiC modules



Upcoming School Projects

, under construction



Anderson Road KT2e



Anderson Road Primary School w/ Kindergarten



Taipo Area 9 Primary School



Tsuen Wan West Primary School

Studies

An aerial, high-angle view of a large, multi-story residential building complex. The building is composed of several interconnected wings, creating a central courtyard area. The architecture features a mix of light-colored facades and darker, possibly red-tiled, sections. Numerous windows are visible across the facade. In the central courtyard, there are some small structures and what appears to be a paved area. The overall scene is captured in a slightly desaturated, muted color palette, giving it a calm, observational feel.

Study on MiC in Government Quarters



Apex House, Wembley - Courtesy of HTA Design LLP

ARCHITECTURAL SERVICES DEPARTMENT ACADEMY SESSION Study on Modular Integrated Construction (MiC) in Government Quarters

10 January 2019

[Revision 2]



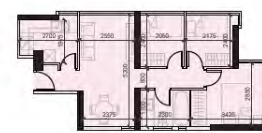
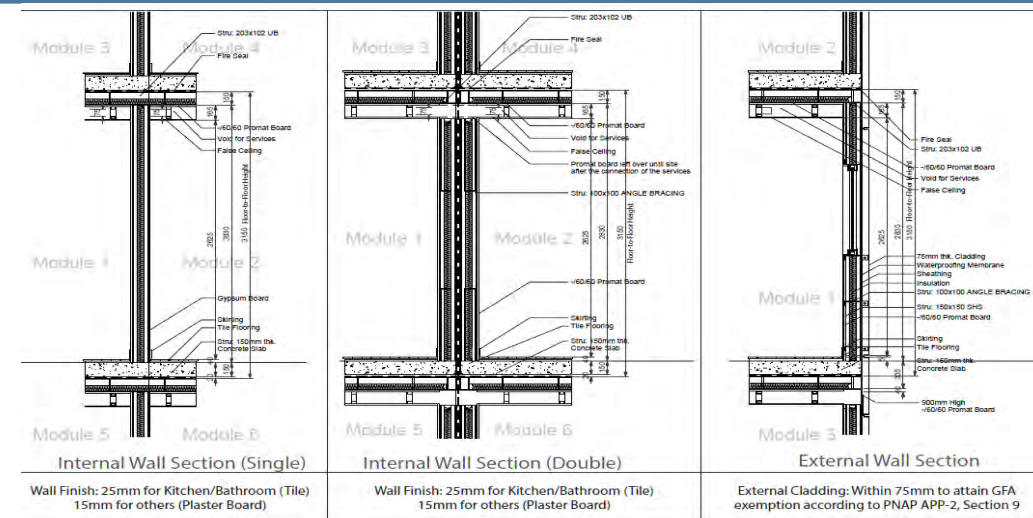
Architectural Services Department

AD+RG

AD+RG architecture design and research group ltd. | HTA Design LLP (UK) | Wong & Cheng Consulting Engineers Ltd.



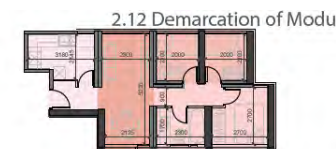
WONG & CHENG
CONSULTING ENGINEERS LIMITED
黃家駒建築工程有限公司



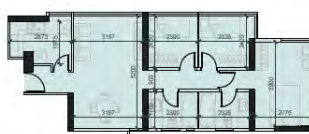
G-Grade Unit Type 1



G-Grade Unit Type 2



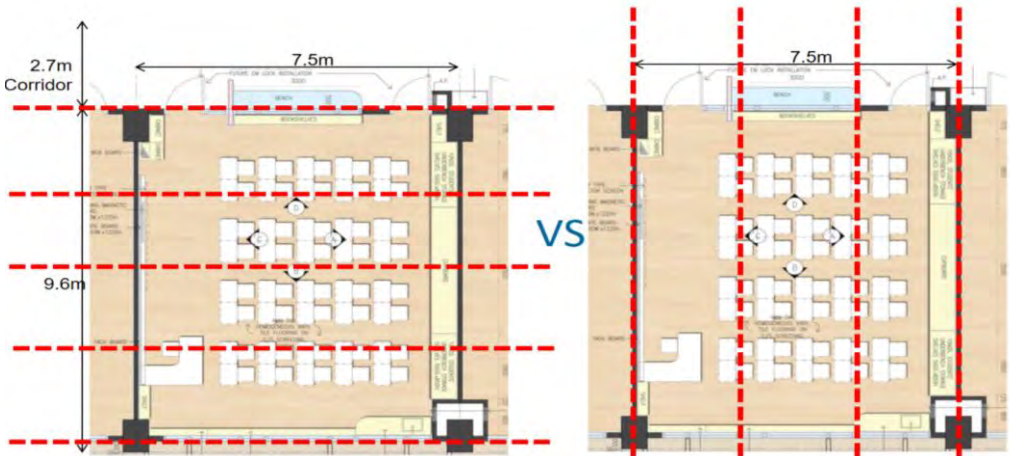
2.12 Demarcation of Modu



F-Grade Unit

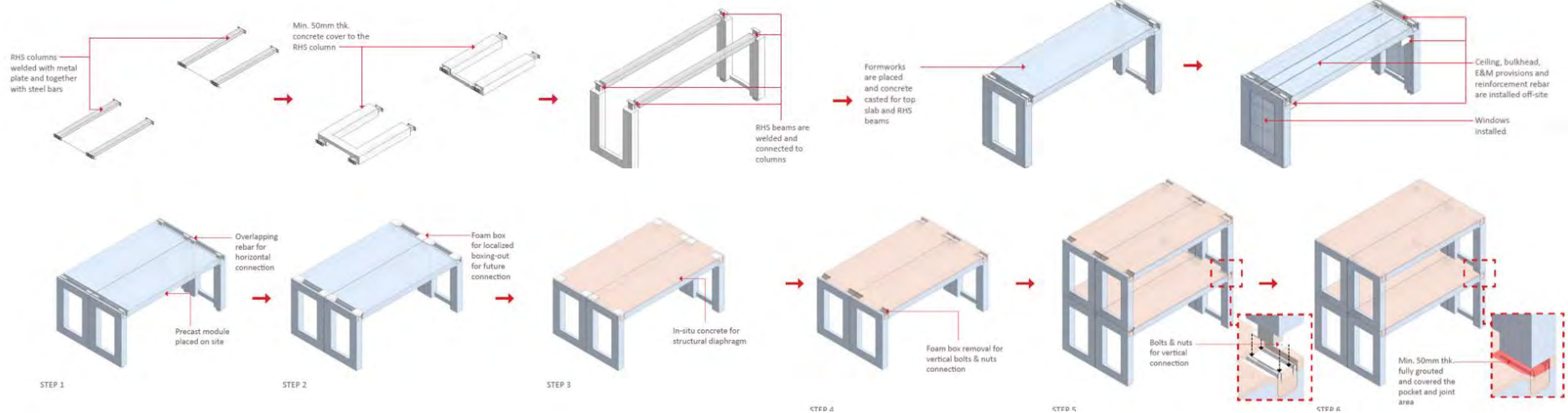


Study on MiC in School Projects



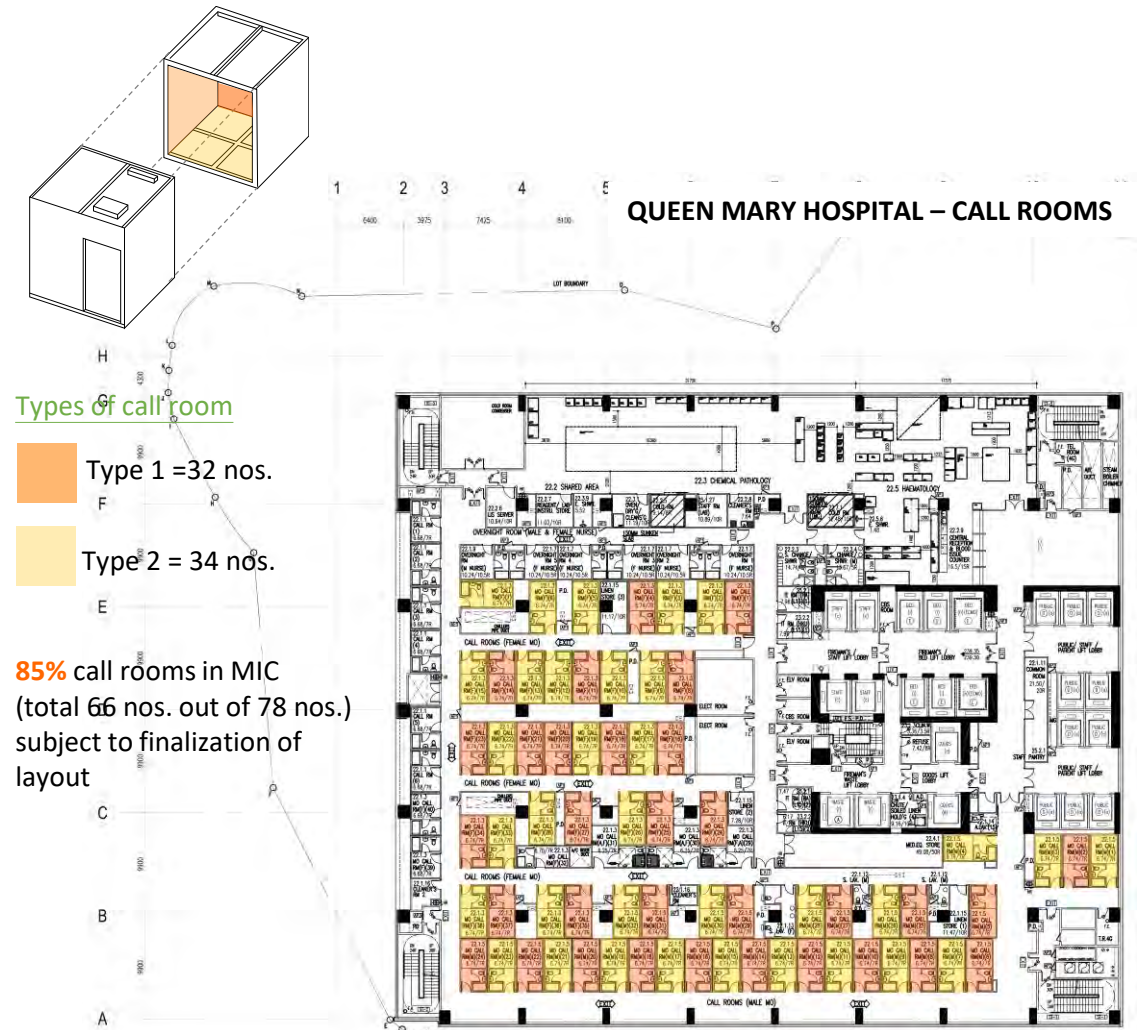
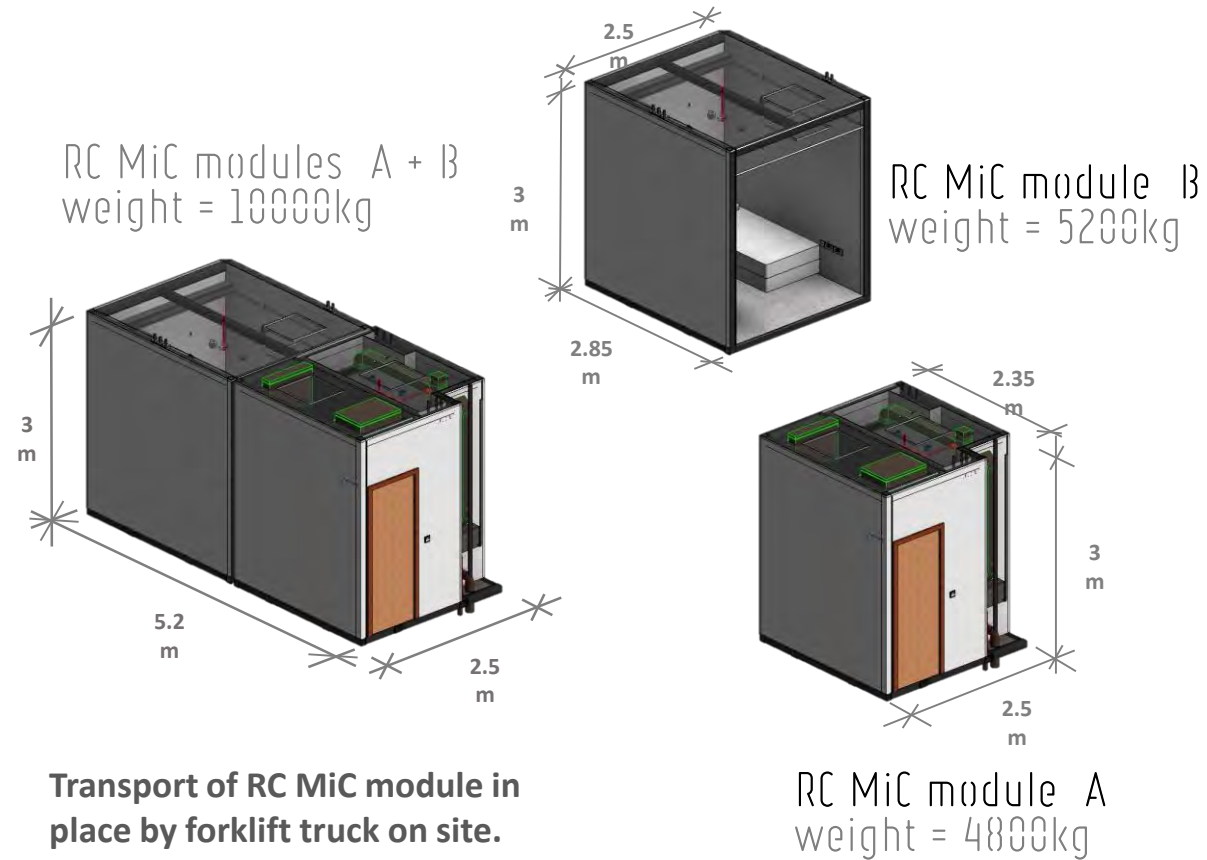
MiC Opportunity

Joint Mockup



Industrialised Manufacturing procedures

Upcoming Study on MiC in Hospital Projects



An aerial, high-angle view of a multi-story residential building with a central courtyard. The building has a grid-like structure with many windows and balconies. The courtyard in the center is paved and contains some small trees and plants. The overall color palette is muted, with a lot of greys and blues, and some reddish-brown accents on the building's facade.

4

Collaboration & Facilitation

“Open Door” Sharing



Forum / Chatroom
Sharing with Industry
Partners



Visits / Tours



Symposiums / Conferences



International Conference on MiC



DEVB ICE Joint Evening Seminar



CIC Construction Innovation Expo



Symposium for Innovation, ArchSD



ArchSD Academy

ICE HKA: 1-Day Seminar 2019

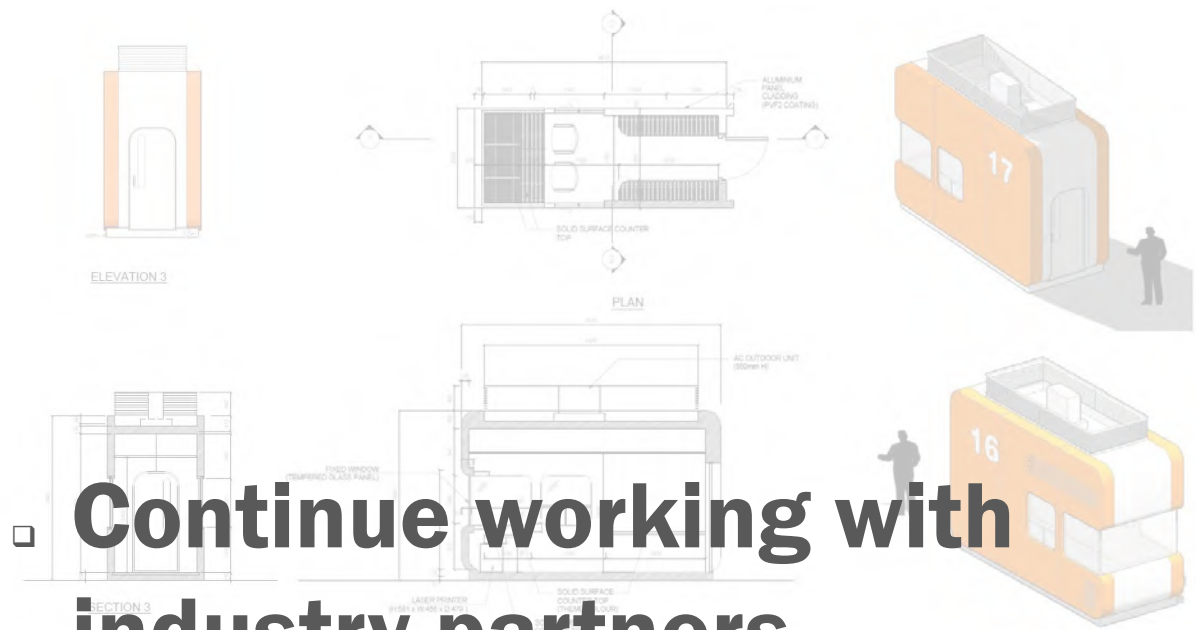
An aerial, top-down view of a city grid, likely New York City, showing a dense arrangement of buildings and streets. A semi-transparent blue overlay covers the entire image. In the top right corner, a large, bold, blue number '5' is displayed. In the middle left, a blue horizontal bar contains the text 'Forward Looking' in white. The bottom half of the image is also covered by the same blue overlay.

5

Forward Looking


Collaboration with Construction Industry

- Continue working with industry partners



DfMA
MiC
BIM
IoT





To drive for better efficiency through
industrialization of construction process

THANK YOU