

# Industry Practitioners Category

## General Practitioner

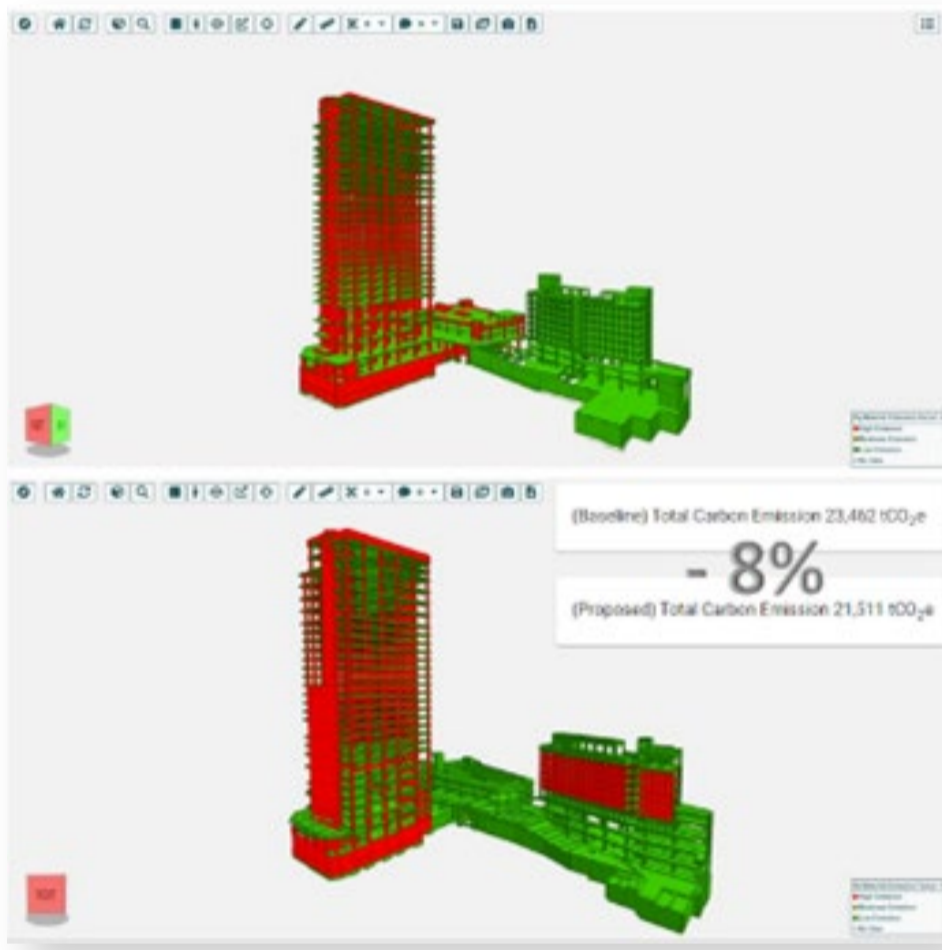
### Excellent Award

**Kingsley CHAN King-wai**



## Design and Construction of Kwun Tong Composite Development

KTCD is a design-and-build project that includes the Civil Service College and a variety of community and welfare amenities. The design incorporated advanced technology to minimise the sustainability impact on the surrounding environment. The construction proposal embraced concepts from Construction 2.0, Industry 4.0, modern methods of construction, and the application of modular integrated construction and prefabrication to prioritise safety, quality, and waste reduction. Operations are supported by digital platforms and common data environment, providing a smart and green construction site.

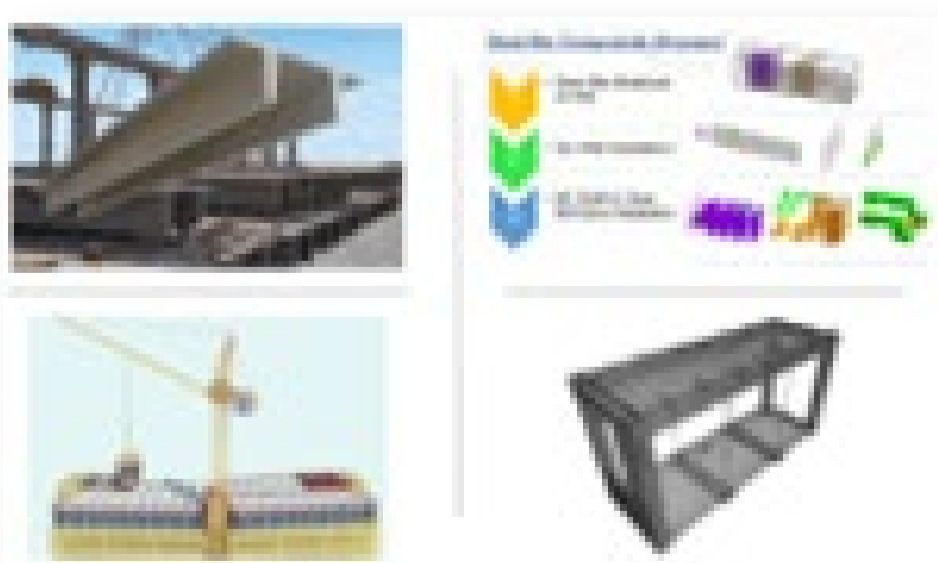


### Sustainable Best Practice 1

Kingsley applied BIM technologies during the design stage, which improved sustainability performance in both construction and operation. The design and detected issues were coordinated and reviewed in 3D at least one month before construction. Issues and clashes could be resolved at an early stage to reduce potential waste generation. The BIM model was also used to improve the overall embodied carbon performance through iBEAM Unison. Thus, there was an 8% reduction in embodied carbon due to design and material modifications.

### Sustainable Best Practice 2

Kingsley set up the Smart Control Centre, allowing the management team to access project information and make decisions accurately and promptly. Design and submissions are available on A-site and Revit online platforms. The real-time site conditions can be monitored using AI cameras and IoT sensors, such as tree sensors and G-Eye for dump trucks. The Gambo2.0 platform was developed to record attendance at different events. All data are digitalised, helping to save more than 7,300 sheets of paper per year.



### Sustainable Best Practice 3

Kingsley helps reduce safety risks and environmental impact on the surroundings by applying advanced construction methods. Approximately 743 units of non-structural MiC, 194 units of structural MiC, and 1,060 pieces of prefabricated parts have been manufactured off-site. Production is done in a controlled factory setting, which reduces the amount of material waste and optimises resource usage. With detailed logistic planning and 4D simulation, prefabricated modules can be installed systematically, making the best use of resources.