

COMPANY  
**Sun Hung Kai Real Estate Ltd.**

PROJECT  
**Proposed Comprehensive Development**

LOCATION  
**Inland Lot No.9027, Java Road and Tin Chiu Street,  
North Point, HK**

TYPE  
**Residential**

SCHEDULED TIME OF COMPLETION  
- Phase 1A – PTI (Target Jan, 2016)  
- Phase 1B Residential (Target Aug, 2017)

# Strong Team Spirit with One BIM Model



#### BIM PARTNERS INVOLVED

**Ronald Lu & Partners (HK) Ltd.**

**J. Roger Preston Ltd.**

**Siu Yin Wai & Associates Ltd.**

**Forida Ltd.**

**Chun Fai Construction Co Ltd.**

**Lik Kai Engineering Co Ltd.**

#### About Sun Hung Kai Real Estate Ltd.

Sun Hung Kai Properties Limited ("SHKP") was publicly listed in 1972 and is now one of the largest property companies in Hong Kong. It specializes in developing premium-quality residential projects, offices and shopping centres. The Group employs more than 37,000 people.

Sun Hung Kai Properties puts its long-standing belief in 'Building Homes with Heart' into practice, on the one hand by developing residences of the finest quality and offering first-class service to its customers, and also by contributing to the good of the community to make Hong Kong a better home for everyone.

The Group understands that buying a home is one of the biggest decisions people make in their lives, and so it spares no effort to deliver the very best. Vertical integration from planning, material sourcing and construction through to project monitoring and property management ensures high standards in every aspect of a development.

The Group's seasoned management team follows prudent strategies for long-term business development and the company's philosophy includes a strong sense of corporate social responsibility, both to its customers and to the public. The Group works for the benefit of the community with wide-ranging initiatives to protect the environment, care for the less fortunate and foster educational development.

Sun Hung Kai Properties – We're 'Building Homes with Heart'.

## The Project

Sun Hung Kai Properties is building a Comprehensive Development in North Point, Hong Kong, which includes residential towers, retail, clubhouses plus coach parking.

## The Challenges

The project has a large area, with facilities including basement car park, public transport interchange and swimming pool - making it difficult to coordinate a verified design. Adding to the challenges are services below the interchange, smoke vents and transformer rooms, making it hard to express and clarify the design intent.

Plus, if following normal practices, separate BIM consultants would handle the design and tender stage, and the construction stage - which would reduce efficiency, partly as the BIM model might be entirely rebuilt.

## The Solution

One BIM consultant was employed for both the design and construction stages.

A BIM model was created, and continually updated to represent the latest design. In addition to aiding multidiscipline coordination, the model was used by the contractor to facilitate the construction process.

Early in the site processes, a simulation was made to visualise the master construction programme – elevating BIM to serving as a tool for project planning by the builder.

## The Benefits

2D CAD drawings were exported directly from 3D model, so each department to review the design, and for further coordination. Formal CSD was also generated from the model, with views to clearly describe the routing of all services. These drawings and views were created more swiftly than possible with traditional methods.

The BIM model was especially useful for coordination of services in tight spaces, such as the ground floor drainage system and the electrical & mechanical systems for the basement car park. The designers confirmed they could meet strict car park headroom requirements, which varied between areas.

The BIM model was used to work out several design options for over 30 smoke vents across the B1 level, which had to be coordinated with other services, and vented to several locations. Likewise, BIM was used to verify the design of the transformer room, ensuring it will be functional whilst having minimal impact on retail space - and suitable for delivery and installation of equipment.

## Better with BIM

A strong team spirit was created during the design stage, and continued to the construction stage. This benefits and enhances the communication between design consultants and sub-contractors, while ensuring the BIM model is more sustainable. Indeed, the BIM model is almost "alive", always containing the latest information, and enabling a smooth project workflow.

