

# ONE RAFFLES QUAY

## *Singapore*

### *Development Team*

#### *Owners/Developers*

**Cheung Kong (Holdings)/Hutchison  
Whampoa**  
Hong Kong, China  
[www.ckh.com.hk](http://www.ckh.com.hk)

**Hongkong Land**  
Singapore  
[www.hkland.com](http://www.hkland.com)

**Keppel Land International Ltd.**  
Singapore  
[www.keppelland.com.sg](http://www.keppelland.com.sg)

#### *Design Architect*

**Kohn Pedersen Fox**  
New York, New York  
[www.kpf.com](http://www.kpf.com)

#### *Architect of Record*

**Architect 61 Pte Ltd.**  
Singapore  
[www.a61.com.sg](http://www.a61.com.sg)

One Raffles Quay is a speculative Class A office building set on a 1.1-hectare (2.8 ac) site reclaimed from the sea and straddling a rapid-transit subway line. The result of a collaboration among three of Asia's leading developers—Cheung Kong Holdings, Hongkong Land, and Keppel Land International—the project, which comprises two elegant commercial towers designed specifically for financial services tenants, forms a strategic connection between Singapore's existing CBD and Marina Bay, its new financial hub.

When the site was tendered by the Singapore Urban Redevelopment Authority (URA) in March 2001, the country's economy was heading south—from 10 percent GDP growth in 2000, a high rate fueled by the information technology sector, to a 2 percent contraction in 2001—along with the economies of the entire Southeast Asia region. Nevertheless, the development consortium saw an opportunity in the growing base of international banks in Singapore and the extremely limited supply of Class A offices designed for financial service tenants, and it decided to take on the project.

There were two primary technical challenges. The project had to be built directly above existing subway tunnels, which ran through unstable, reclaimed land. And the URA required, as a condition of its land tender, the inclusion of a massive district cooling system (DCS) capable of cooling 929,000 square meters (10 million sf) of future space within the planned Marina Bay district, including One Raffles Quay itself. The DCS is intended to promote the URA's goal of freeing up roof areas, where building cooling towers are usually located, in future Marina Bay developments to improve the skyline and to encourage the installation of green roofs.

The challenge of the districtwide cooling system was addressed by an enormous chilled water storage system—also known as TES—that uses off-peak electricity to chill water, which is stored and then pumped during peak hours to individual air handlers within the DCS. One Raffles Quay's TES is located beneath the Raffles subway station and the intersection of Raffles Place, one of the busiest intersections in Singapore. Because there was no room for the plant's cooling towers in the basement, they were placed on the podium level on a massive covered deck between the two towers. A landscaped pedestrian plaza, a vehicle drop-off area, and additional public space were located below the cooling towers deck. The cooling towers thus are well hidden and blend into the project's overall design.

To deal with the subway infrastructure challenge, engineers devised a hybrid structural system that minimized the weight of the two towers while enabling the foundation system to fit within the restricted space below the surface. The building's central core functions as a transfer structure to distribute the load around the subway infrastructure; its shape and configuration resulted in a grand entrance to a voluminous interior atrium space at the north tower lobby.



To determine what features and services to include in the project, the developers canvassed their existing tenant bases. The 50-story north tower and the 29-story south tower together contain 123,969 square meters (1.3 million sf) of office space designed specifically for financial services tenants—with regular, column-free 1,670- to 2,970-square-meter (18,000 to 32,000 sf) floorplates; high-technology specifications; and multiple levels of redundancy in essential services. The project established itself as a top business address in Singapore even before it was completed in November 2006. International banks make up 75 percent of One Raffles Quay’s tenants; two-thirds of its tenants hold a long-term Standard & Poor’s rating of AA or better; average lease terms are ten years with regular reviews; and 12,000 employees work there.

“The developers of One Raffles Quay saw the site as a unique opportunity to be involved in the first stage of Marina Bay, Singapore’s new downtown,” says David Martin, general manager of Raffles Quay Asset Management. “We also realized we could meet the needs of international banks locating key regional and global functions to Singapore. We are very proud to have met these two objectives successfully. The building was 100 percent leased prior to completion to a who’s who of international finance, and the development team is now working on the next stage of Singapore’s development, the Marina Bay Financial Centre, which will be completed in 2010.”

### *Project Data*

#### *Website*

[www.orq.com.sg](http://www.orq.com.sg)

#### *Site Area*

**1.14 hectares (2.82 ac)**

#### *Facilities*

**123,969 m<sup>2</sup> (1.3 million sf) office**

**372 m<sup>2</sup> (4,004 sf) retail**

#### *Land Uses*

**office, retail, parking**

#### *Start/Completion Dates*

**June 2002–November 2006**