



**THE PARCVILLE RESIDENTIAL COMPLEX – HIGH QUALITY PRIVATE HOUSING WITH ENVIRONMENTAL CONSIDERATIONS**



Located in Tung Tau, Yuen Long, the Parcville comprises of 14 low-density residential towers of 13 to 15 storeys, accommodating 1600 units, a car park and a recreational clubhouse, with a total gross floor area of 92,000m<sup>2</sup> over a site area of 31,000m<sup>2</sup>. The developer for the residential complex is *Sun Hung Kai Properties (SHK)*, with *Wong Tai Associates* as the architect, *Yee Fai Construction* as the main contractor, *Hong Chui* as the landscape architect, and structural and building services engineering provided by *Sun Hung Kai Engineering*. The construction of the premises commenced in July 2000 and was completed in August 2002

*SHK* intended to integrate sustainable environmental features into the building design of this prestigious private housing project. Consequently, at the conceptual design stage in 1999, Parcville was submitted for certification to HK-BEAM (the Hong Kong Building Environmental Assessment Method). Through collaboration between designers, a series of innovative and sustainable building design features are incorporated into the premises. As a consequence of these pioneering initiatives, Parcville achieved the highest HK-BEAM rating of *Excellent* upon building completion in 2002, the first residential premises to accomplish this level of environmental performance. Examples of some of these innovative residential design features adopted in Parcville are highlighted below.

**SOLAR POWERED LANDSCAPE LIGHTING**



These exterior lighting systems are self-contained and powered by renewable energy. The solar lamps consist of either nickel cadmium or lead acid batteries, and are charged during the day via photovoltaic panels and switched on at night via the use of motion sensors, upon detection of people movement. In addition to environmental benefits, these lighting systems offers reduced operational costs as grid electricity charges and cable maintenance are eliminated.

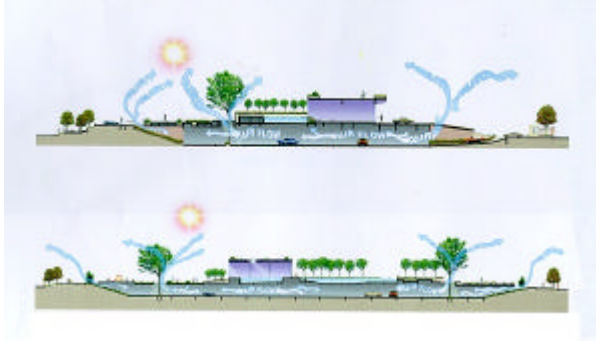


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**NATURALLY VENTILATED CARPARK**



Indoor car parks in Hong Kong typically rely upon mechanical ventilation systems to expel vehicle exhaust fumes into the atmosphere. The designers came up with the innovative concept of a semi-opened basement car park with landscaping to enhance natural ventilation and thus conserve energy consumption. Elevation of the podium structure and creation of ventilation openings enhances natural

airflow within the car park. In addition, trees are planted in the basement and stretch through and beyond the podium structure. This generates a three dimensional perspective to the landscaping and tree openings improve cross ventilation of the basement car park.

**WATER CONSERVATION DEVICES**

The use of “dual flush” sanitary fittings have been adopted overseas for many years. The designers introduced this water conserving device for Parville in which residents can select between two different volumes of flush discharges, understood to be a first for residential premises in Hong Kong.

Hong Kong experiences a strong monsoon season and the Yuen Long area in particular receives high levels of rainfall during the summer months. In view of this, grey water collection, treatment and recycling systems have been installed, which during the rainy season, uses treated rainwater for plant irrigation and cleansing of common areas in the premises.



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(Case Study Summary)

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