

SOUTHEAST ASIA

# building

INCORPORATING ARCHITECTURE, INTERIOR DESIGN AND LANDSCAPING  
Published since 1974

JUL/AUG 2014



**ON THE COVER** Sunlight House in Austria **ARCHITECTURE** Green Lighthouse, a CO2-neutral building in Denmark **INTERIOR** Tseun Wan Adventist Hospital extension building in Hong Kong **LANDSCAPE** Sky Gardens at PARKROYAL on Pickering **SHOW REVIEW** WORLDBEX 2014 **SHOW PREVIEWS** BEX Asia 2014 OneBuild@IB 2014 & Ecobuild Southeast Asia 2014 **PLUS**





### Guestrooms and suites

The guestrooms and suites are configured to allow as much natural light in as possible. Rooms are also equipped with sliding walls in order to maximise the sense of space. Every room features all-natural products with recycled composite granite used for bathtubs, sinks and vanity tops. Elemental wood and stone finishes lend an organic feel, while soft colour hues - a palette of muted greens - combined with large windows, creates a light and airy ambience.

### Sky gardens and corridors

PARKROYAL on Pickering is an iconic green structure, with a hotel-in-a-garden design concept, which reflects and enhances the Singapore's garden-city reputation. With 15,000 square metres of lofty four-storey tall sky-gardens, reflecting pools, waterfalls, planter terraces and cascading vertical greenery, PARKROYAL on Pickering's lush foliage constitutes more than 200 percent of the total land area, a scale unprecedented in a built-up city centre.

A lush tropical garden with dense layered and large leaved exotic planting like *Monstera*, *Alocasias* & *Calatheas* combined with ferns and palm varieties was used to create the hotel-in-a garden experience for the guests. A combination of shade loving textured ferns and partial shade loving palms & shrubs were planted addressing the varying natural light and wind conditions along the four sides of the building. Flora species ranging from shade trees, tall palms, flowering plants, leafy shrubs and overhanging creepers encourage bio-diversity in the city.

Tall multi-tiered *Bucida* trees with fine leaves and shrubs like *Calathea lutea* with broad and dense leaves complement the contours of the building. *Heliconias*, *Alpinias*, tall and sculptural Frangipani trees – one of the most common flowering sculptural trees in Singapore, and large leaved *Ficus lyrata* trees act as anchors and add colour to the overall garden scheme. Vietnam Leaf-Flower (*Phyllanthus cochinchinensis*) and Lee Kuan Yew creeper (*Vernonia elliptica*) are the two types of plant species used for the cascading greenery.

The vast greenery absorbs heat, shades hard surfaces and evaporative transpiration resulting in improved air quality. Ferns, Mondo grass (*Ophiopogon*), *Alocasia* and *Euterpe* Palms were chosen to minimise the potential pest attacks and lower the maintenance efforts.

The extensive use of ferns & palms along the buildings ensure a low water xeriscape planting concept for most of the planting areas. Auto-irrigation & fertigation system installed for all the planter areas ensure that through timer controlled drip nozzles, slow, steady



and precise amounts of water and nutrients are provided to the trees, shrubs, ground covers, vines and potted plants.

### Energy and water saving features and targets

The hotel features a number of eco-friendly features. Spaces such as external hotel corridors are designed to be naturally ventilated to reduce the cooling requirements of the building. The central chiller system is designed to maximise its operating efficiency by incorporating various control strategies via the Building Management System.

Hot water system is designed to use air-to-water heat pumps with a coefficient of performance of at least 4.5 (or better). Demand-based controls are incorporated for ventilation systems to minimise energy use. Carbon monoxide and carbon dioxide sensors are used to control car park fans and ventilation for air conditioned space.

The building is designed to maximise harvesting of natural light for areas such as the hotel corridors and lobbies. Energy efficient lamps (LED and T5 type fluorescent lamps) and water efficient fittings are used throughout the building where appropriate.

