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造景世界 LANDSCAPE ARCHITECTURE
ENVIRONMENT DESIGN



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Changi Airport Terminal 3 Interior Landscape

In embarking on its ambitious expansion program in 2000, Singapore's Changi Airport, perennially named as the best or next-best in the world, intended to raise the bar for excellence in design and to create a monumental iconic first point of entry to the nation-city. Since the landscape design began during the initial stages of project planning, the team was able to integrate the building design, the interior design, and the landscape design into a cohesive whole.

Planting Concept

The granite-clad dividing wall was transformed into a large green wall, a vertical tapestry of climbing and aerial plants. This vertical garden is the building's most distinctive feature, spanning 1,000 feet of the 1,300 feet length building and at 50 feet high, helped to scale down the high interior space. The structure for the green tapestry is a system of cantilevered I-beams and stainless steel cable structure with planting troughs at every ten feet, covered with vines, creepers and epiphytes. This installation is achieved without sacrificing valuable floor area or compromise to functional requirements.

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A unique characteristic of the tropical rainforest inspired the selection of the more than 10,000 plants for the vertical garden. In the rainforest, vines and epiphytes successfully compete for growing space by lifting themselves off the ground with the help of tall neighbors. In this manner they are able to escape the low light level of the forest floor to reach up to the forest canopy.

Project Statement

Large-scale vertical planting evoking a South East Asian equatorial rainforest was introduced into the interior of Singapore's Changi Terminal 3 to structure and soften an otherwise cavernous industrial building. A woven tapestry of living plants not only divides the mega-building in plan into landside/air-side sections but also connect the vertical space of the check-in/arrival areas, which are separated by a glass security screen.

"The future of landscapes. The landscape architect created an amazing place that has plants growing where you can't imagine they can grow. The plant selections are different and wonderful."

-2009 Professional Awards Jury-

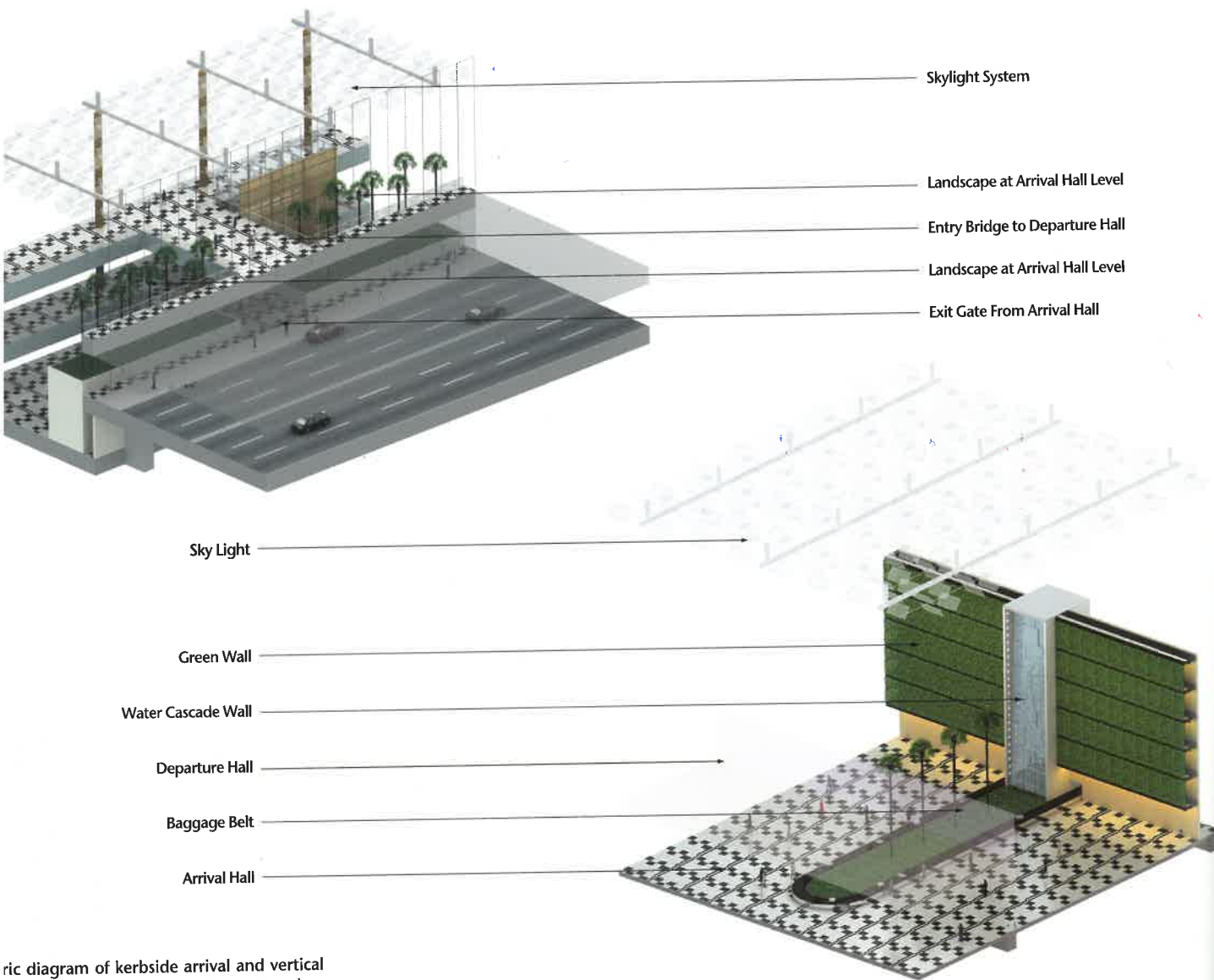


Diagram illustrating the kerbside arrival and verticality with water feature and baggage carousel.

The green tapestry is designed to be maintained easily from catwalks behind the suspended structure. The plants are pre-grown in containers on stainless steel cables which are secured to the structure without need of fasteners.

Perpendicular to the tapestry on the arrival level floor are wide planters with a variety of massed plants and covers and majestic *Livistona chinensis* (Chinese fan-palms).

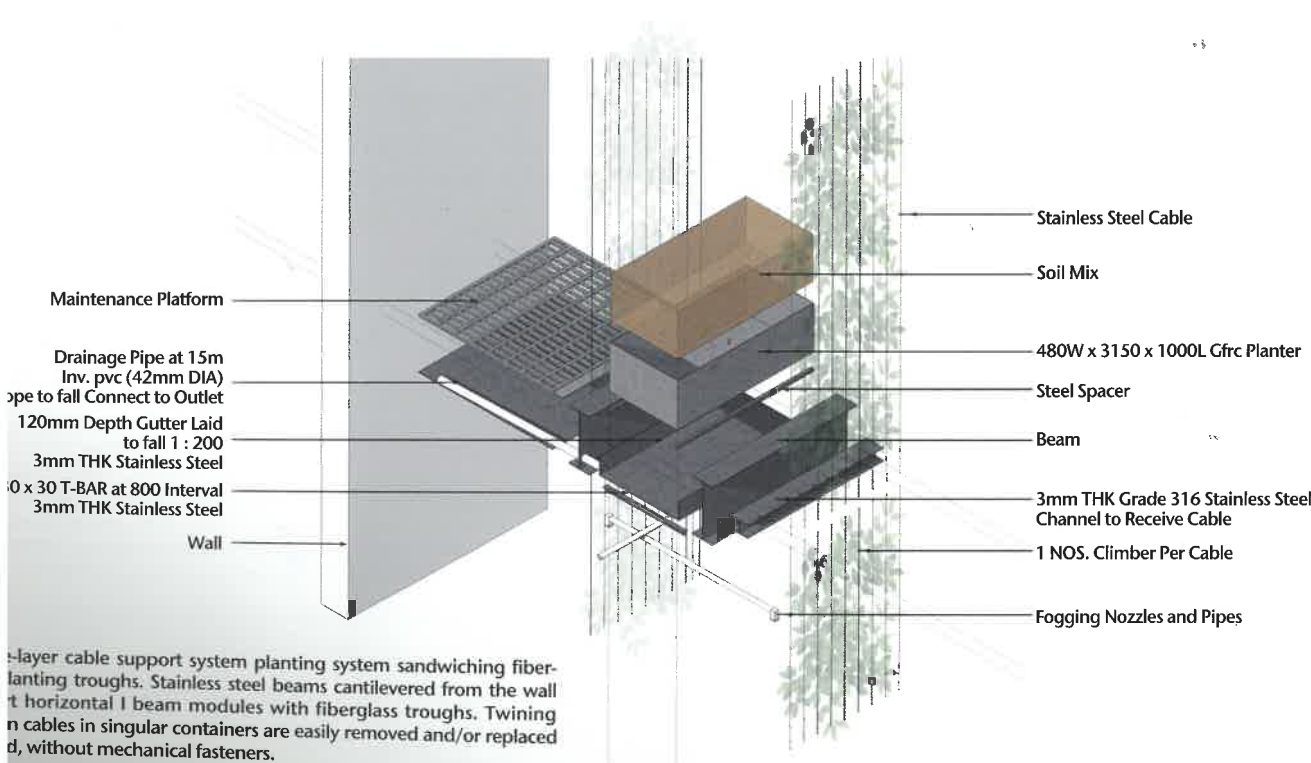
The water features 60 feet tall and 20 feet wide made from shredded glass panels laminated to stainless steel plates, were added to compliment the wall of green. Their shimmering water movement adds texture to create a rhythm of moving light and sparkle against the elegant silence of the tapestry.



The green tapestry is not merely a decorative accent but a bold environmental statement complementing the architecture, demonstrating that landscapes as architecture is capable of humanizing the interior environment of an enormous and complex building.



ity is replenished by a misting system



제3 창이 공항 터미널 실내조경

2000년에 싱가포르 창이 공항 확장 프로젝트를 하였는데, 이는 세계 최고 수준의 디자인으로 싱가포르 첫 관문입구로서의 기념비적인 상징물을 제우려고 하였다. 조경가는 프로젝트 기획 처음부터 같이 참여했기 때문에 빌딩과 인테리어, 조경설계를 통합적인 디자인이 가능하였다.

식재 콘셉트

- 화강암이 돌로 갈라져 있는 벽은 큰 녹색의 벽으로 변하고 수직으로 식물들이 웅 단같이 퍼져 있었다. 이 수직정원은 건축물의 대표적 특징이며 길이 1,300피트, 폭 1,000피트 그리고 높이 50피트로 높은 실내공간을 축소되어 보이게 하고 있다. 녹색 웅단 구조는 10피트마다 외팔보의 I 형 빔과 스테인레스 스틸 케이블로 되어 있으며, 그 위에는 10피트마다 홈통이 있고 포도나무와 착생식물들로 뒤덮여 있다. 이 부재의 설치는 실용적이어야하는 1층 면적을 해치지 않고 기능적으로 공간의 요구를 만족시키고 있는 것이다.

- 녹색 웅단은 풍요로움, 다양성과 동남아시아 적도의 강우림의 성격을 잘 나타낸다. 이 광대하고 압도적인 수직의 형태는 터미널의 넓은 공간에 강력한 정체성을 만들어 준다.

- 열대 강우림의 유일한 특성은 수직재 정원을 위해 10,000개의 식물을 선택하도록 하였다. 강우림의 포도나무와 착생식물은 키가 큰 주변 식물들의 도움으로 땅 으로부터 이 식물을 들어올려 공간에서 성장할 수 있었다. 이처럼 식물들은 삼림 지역의 저광수준을 벗어날 수 있었으며 천개까지 이를 수 있었다.

- 녹색 웅단은 매달려 있는 구조 뒤의 좁은 통로에 유지되도록 디자인 되었다. 짐쇠 없이 구조적 골조에 고정된 스테인레스 스틸 케이블에서 식물은 컨테이너에서 미리 성장한다.



This vertical garden is the building's most distinctive feature, spanning 1000 feet of the 1300 feet length building and at 50 feet high, helped to scale down the high interior space.

- 수직웅단의 바닥에는 큰 비로우 야자의 다양한 종류와 함께 넓게 식물들로 뒤덮여 있다.

물

스테인레스 판에 얇은 조각으로 잘려 세세한 유리 패널의 높이 60피트, 20피트 폭이 만드는 물의 특징은 녹색의 벽의 찬사를 더욱 높이고 있다. 희미한 물의 이동은 빛에 따라 움직이는 울동감을 내고 있고 녹색 웅단의,우아한 침묵을 깨면서 반짝이고 있다.

글: Tierra Design (S) Pte Ltd, 



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