

Project Name:
Hanging orchard Hotel Mercure Madrid Santo Domingo

Date of completion:
June 2011

Author of the project:
Felix Pasquin alongside Manuel González Vela

City:
Madrid

Province:
Madrid

Country:
Spain

Region
Europe

Type of project:
Green wall

Building use:
Commercial

Green Cover Type:
Not applicable

Green Wall type:
Green wall

Cover / experimental Wall:
Not

Systems / Techniques used:
Custom

Number of Decks / Walls on the property:
1/1

Covered Area / Wall (m²):
1026

Slope of Deck / Wall (% , degrees or ratio):
100%

Ease / Accessibility Cover:
The orchard can be seen

Public access:

Yes, on request

Designers / Technical / Manufacturers participants:

Designers / Technical / Manufacturers (1):

Manuel Pasquín Agero, landscape designer and director of enforcement, Semper Veris, Madrid

Designers / Technical / Manufacturers (2):

Felix Gonzalez Vela, architect, designer. Andrés Mellado, 31 Madrid, Madrid, Madrid, Spain (28015)

Designers / Technical / Manufacturers (3):

Supplier of plants, the Peñotes orchard Center. Burgos Road, Exit 12-A, Autov. North A-1 KM 13,800. 28108, The Moral, Alcobendas, Spain.

Designers / Technical / Manufacturers (4):

Maintenance Company, Natura Deorada, Madrid.

Designers / Technical / Manufacturers (5):

Special design collaboration of the hotel management by Antonio Nunez Tirado.

Designers / Technical / Manufacturers (1):

Designers / Technical / Manufacturers (1):

Author:

Manuel Pasquín Agero

Contact the author:

Landscape, Madrid.

Phone:

699 934 469

Email:

Manuel.pasquin @ manpas.net

Description 1:

Background and Objectives of Design:

Will include an overview of the history of the building and / or the promoter, and objectives. For example, why we opted for a cover? With what intention? Add the objectives of the designer / developer, function, site requirements, etc.. Add if you have certifications like LEED, BREEAM, etc.. Grants, external funding, mentions received, etc..

After completion of the construction of Mercure, the question arises of what to do with the wall now occupied by the orchard in the courtyard. From management through D. Antonio Nunez, project developer, is looking for ideas with the architect D. Felix Gonzalez. Shuffle alternatives like video projections, some graffiti art initiative as employees in other areas of the hotel, tarpaulins, lighting, etc.. It is then, when deciding with D. Manuel Pasquini, make a vertical orchard, and

provide 70 courtyard facing bedrooms have spectacular views, providing a differentiation and added value to customers, in line with the architectural and decorative concept of the hotel. From this point, an additional objective arises, vision and conceptual eco green architecture. The project has been referred to by its beauty and contribution to improving the environment in different media. Given its size, at the time, could have been recognized by the Guinness Book of Records as the largest hanging orchard in the world.

Description # 2:

Materials used, Construction and Plans:

Include information about how they were. Describe constructive systems used in land cover, specifications and building height, growth and development, plant material, time spent in execution, price per square meter, quirks and problems. If it is an essay, a brief description. Attach in email photographs of the baseline (before, during and after) and final appearance, sketches, drawings and diagrams of the materials used in its description to a number of 11 files.

The Hanging orchard has a total area of 1,026 m², orchard 844 m² and 22.9 m² main high and more than 200 varieties of plants and flowers, highlighting seasonal, non-allergenic, shrubs and trees. An artificial waterfall and previously established complete, along with a small cover up the set.

The novelty of the system used as scaffolds are utilized in the above construction, and constitute the skeleton of the orchard with about 300 meters. Along with hotel maintenance staff were standing mesh scaffolds heather to hide. This system has the advantage of accessibility for maintenance, avoiding the use of cranes and climbing techniques.

From currently placed in over 400 planters stepwise with 40,000 liters of conventional plant substrate, with more than 2500 plants among which are shrubs, perennials, grasses and colorful season guarantee. It also includes 8 trees over 5 feet tall and 30 smaller ones. In the hollow of the vegetation cover, are also terraced planters.

For maintenance, the flower is changed twice a year station will perform three guano annual subscribers to 0.5% and are controlled with biological control of pests. The drip irrigation, localized, automated and monitored with probes witness. Water from showers and sinks with 50 rooms is collected, filtered, purified and chlorinated to be reused either in the irrigation system or the toilet flushing toilets. The cover uses a conventional system, with the seal of a mesh and the same substrate used for planters.

Among the species found begonia, pine, cypress, eucalyptus, boxwood, laurel, as Mexican blue palm and palm of the church, prunos, ivy, rustifinas, dahlias, tree of Jupiter, joys, brassicas, cold jasmine, etc. . The plants are arranged along the orchard and ornamental agronomic criteria, choosing species suitable for shady areas, areas highly exposed to wind and sun.

His contribution to the environment and climate change mitigation effect, was one of the design goals. The figures speak for 25,000 kg of CO₂ captured per year and emission of oxygen would consume 200 people a day. Acts as a thermal and acoustic insulation. Minimizes heat island effect, and that can reduce the temperature inside and outside of the city between 6 and 10 degrees. Effect would be equivalent to 50 air conditioners. The orchard encourages biodiversity, not only plants, but it incorporates birds nests to play an important role in biological control.

The waterfall is 20 meters high, allowing different effects with different jet types. Its role is crucial for the maintenance of the plant and reducing the temperature of the orchard. It also incorporates a light and sound to create atmospheres and environments that customers enjoy.

The investment is around 380,000 euros with the collaboration of more than 15 technicians of different specialties. One of the most important economic aspects of the cost is maintenance. For a landscaped area of this complexity, just round the 350 euros per month, excluding seasonal flower changes. The amount is far below the cost of maintenance of other vertical orchards. The reasons are the use of orcharding techniques, reuse and access to maintenance.

Description # 3:

Additional Resources

List of relevant sites, news, press releases, conferences, theses, pdfs, etc.. for more information.

Indicate whether you want to respond to future surveys be included in databases of interest, both for you as the author, project management, owner, etc..

<http://vimeo.com/56100820>

<http://hotelsantodomingo.es/es>

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