

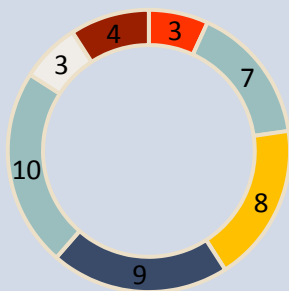


WALDORF ASTORIA RESORT PALM JUMEIRAH DUBAI

Trakhees-EHS In-House Certification Fact Sheet

Project Scorecard

Rating: Gold
Total Score: 60 points



- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Air Quality
- Regional Priority
- Innovation in Design

Project Brief

Waldorf Astoria Dubai Hotel and Resort, located in Palm Jumeriah, Dubai, has a floor area of 101,309 m². It boasts a private soft-sanded beach, six distinct restaurants and lounges and elegant sea-facing guest rooms and suite.

Platinum Sustainable Development International were entrusted to meet the sustainability requirements for the project.

The key sustainability goals for the project were to be energy efficient, have low operating costs and provide a healthy indoor environment for its occupants. Through meticulous approach implemented by the project team, the project was able to achieve, EHS In House Gold rating level.

Platinum's work for the project included:

- Green Building Facilitation (Design and Construction)
- Independent Commissioning services
- Energy Modeling services



Platinum Sustainable Development International

Green Buildings | Estidama | LEED | Building Commissioning | Environmental Services

Overview of Key Green Building Features

Energy Efficiency

Platinum's team facilitated various design charrettes with Client, Architects & MEP Engineers, to ensure the green building requirements and high-performance features are effectively incorporated for the project.

By carrying out energy modeling simulation and analysis, various energy conservation measures were explored. These measures were further optimized, to ensure the project was **26% more energy efficient** when compared to ASHRAE standards. This was achieved by:

- Insulated wall and roof elements with u- value of 0.074 Btu/hr ft² F and 0.044 Btu/hr ft² F respectively
- Thermally efficient glazing units with u- value of 0.3 Btu/hr ft² F and 0.22 SHGC
- Installation of Energy efficient Fan coil units (FCUs) and AHUs with Variable Frequency Drive (VFDs) and Energy efficient lighting systems
- Use of air quality monitors to enhance energy efficiencies in parking garage ventilation system
- Installation of Solar PV, which contributed to 5% of total energy cost



Water Conservation

On water management front, features considered were:

- Selection of water efficient fixtures like ultra-low flow mixers, urinals and water closets, by which the overall fresh water consumption was reduced by **35%**.
- More than **67% of potable water savings** in irrigation were achieved using drip irrigation technologies and by planting native / adaptive plants.
- 84% of water requirement for flush fixtures were met through on-site waste water treatment plant

Enhanced Indoor Environment

- Use of low VOC contents paints, coatings, adhesives and sealants
- All fresh air handling devices are equipped with ultra-efficient MERV 13 rated air filters
- Optimum thermal comfort level & fresh air supply for entire building
- Ventilation requirements were compliant to ASHRAE 62.1 standards

Building Materials, Construction Practices & Green Features

- Construction practices were enhanced by proper implementation of construction activity pollution prevention measures, waste management methods and indoor air quality measures
- More than 10% of the materials used, included a combination of post-consumer and pre-consumer recycled content
- More than 10% of the materials used, were extracted and manufactured within 500 miles of the project location
- More than 75% of construction wastes generated were re-used / diverted from landfill, by adopting efficient waste management strategies.
- Heat island effects were reduced by use of high SRI value materials on roof
- Provision were made for preferred car parks for carpool and low-emitting vehicles
- Spaces were provided for storage & collection of recyclables
- Non CFC based HVAC and fire suppression systems were provided