



REAL FZE Office & Warehouse Building



35 **69**

Sustainable Sites	8	14
Water Efficiency	3	5
Energy & Atmosphere	5	17
Materials & Resources	5	13
Indoor Environmental	9	15
Innovation & Design	5	5

Points Achieved Points Available

LEED POINT ACHIEVEMENT

FAST FACTS

LEED Certification: **Silver, New Construction (NC) V2.2**
 Square Feet: **194,989 sq ft / Office and Warehouse Building**
 Neighborhood: **Jebel Ali Free Zone South, UAE**
 Construction Cost: **\$63.23 / square foot**
 Completed: **February 2012**
 Date of Certification: **13 October 2012**

BENEFITS

- 17.0%** Savings on Energy Use
- 48.7%** Savings on Potable Water Use by Water Fixtures
- 66.0%** Materials Use with Recycled Content
- 22.5%** Regional Materials Use
- 62.0%** Diverted on-site generated construction waste from landfill

PROJECT BACKGROUND

A new resolution on the implementation of green building specifications and standards in the emirates of Dubai has been issued by H.H. Sheikh Mohammed bin Rashid Al Makhtoum, Vice-President and Prime Minister of UAE and ruler of Dubai. As per the new resolution, effective on January 2008, all owners of residential and commercial buildings and properties in the emirates of Dubai must comply with the internationally recognized environment friendly specifications to turn Dubai into a healthy city that meets the demands of best practices and benchmarks of pollution-free sustainable development.

In response to this resolution, we are proud to inform that **"REAL FZE(Office & Warehouse Building)"** has been awarded with Prestigious LEED **Silver** Certification established by the U.S. Green Building Council and verified by the Green Building Certification Institute (GBCI).

REAL FZE(Office & Warehouse Building) – is a new construction Facility Complex project which is comprises of **Office and Warehouse** with a total built-up area of **194,989 sq.ft.** The original REAL Project building was conceived in late 2007. However in 2008, the world was hit by the global financial crisis and REAL management had chose to deferred the construction, by 2010 the construction was set on motion again but now with new design which only include office and warehouse facility.

The project was submitted to USGBC LEED-NCv2.2 for certification vying for Silver Ratings.



PROJECT PROFILE

REAL FZE (OFFICE & WAREHOUSE BUILDING), Jebel Ali Freezone South, Dubai, UAE

SUSTAINABLE SITES AND TRANSPORTATION & WATER EFFICIENCY

The project team sought to encourage sustainability. The following are strategies to support it:

Provides preferred parking and low-emitting and fuel-efficient vehicles on-site

- Provides car/van pool parking
- 100% of non-roof impervious surfaces on-site have been paved with highly reflective materials
- Installed water efficient landscaping
- Installed efficient water fixtures which consume less amount of potable water.
- Installed rainwater tank to mitigate rainwater run-off in the site

MECSD as a Sustainability Consultant for REAL FZE, has created an energy model to evaluate the effectiveness of the building's energy conservation measures, in compliance with ASHRAE Std. 90.1-2004 Appendix G methodology.

ENERGY EFFICIENCY

The following are the Energy Efficiency Measures incorporated in the project:

- Highly insulated mass walls
- Optimized glazing and incorporation of skylights in the office and warehouse
- Efficient lighting and incorporating motion sensors in corridors and timer control for the internal and external lighting as well as daylight sensor in the warehouse.
- Efficient HVAC systems (use of efficient AHU, FCU and chillers)
- Installation of solar PV panels for external lighting (bollard lights)
- Incorporating Building Management Systems to automatically control the HVAC and lighting of the facilities

MATERIAL AND RESOURCES

- Had diverted more than 62% (by weight) of the construction waste from landfill.
- Had used construction materials with recycled content. About 66% of construction material use has recycled content.
- Use regional materials – means those materials which are within 500 miles radius from the REAL Site

INDOOR ENVIRONMENTAL QUALITY

- The IAQ performance complies with the minimum requirements of ASHRAE Std 62.1-2004, Ventilation for Acceptable IAQ
- Installed air flow monitoring device for each mechanical ventilation to monitor the fresh air
- Installed CO2 sensors to monitor the carbon dioxide concentration in the densely occupied spaces
- Developed and implemented a Construction Indoor Air Quality (IAQ) Management Plan in reference to SMACNA guidelines
- Use of building finishes materials with low emission of volatile organic compounds (VOC) for adhesives, sealants, paints and coatings

OTHER GREEN FEATURES INCLUDES

- Earned an exemplary performance in with recycled content construction materials use, water efficient, heat island effect, and maximize open space.
- Provides appropriately sized dedicated areas for the collection and storage of recycling materials

THE TEAM

Owner: **REAL FZE**

Design Consultant: **Badri & Bensouda Architects**

Contractor: **JASAF Contracting**

Green Building Consultant: **Middle East Centre for Sustainable Development (MECSD), Dubai, UAE**

Chief Technical Officer: **Thom Bohlen, Architect, LEED AP**

LEED AP: **Melanie Bacho, Sheila Mateo & Nowfal Kunju Muhammed**

Commissioning Authority: **Pacific Control Systems**

Photograph Courtesy of: **MECSD**