



Dubai World Trade Centre, Dubai, UAE

Project Summary

Dubai is undergoing a \$2 billion investment to build its World Trade Centre across a 110,000m² area. The development will include 3*, 4* and 5* hotels, retail units, serviced apartments and office towers. We are providing specialist acoustics and waste management consultancy, working in collaboration with WSP Group who have been commissioned to undertake engineering services for the masterplanning of Phase 1.

The Client's Challenge:

Our client's objective was to deliver a world leading commercial destination. The existing World Trade Centre District whilst being a high quality development is not commensurate with the iconic surroundings. Our client wanted to provide a development that compliments the adjacent buildings such as the Emirates Towers and Dubai International Finance Centre.

Our Work:

WSP Environment & Energy are providing specialist acoustic and waste management advice for the development of the Dubai World Trade Centre (DWTC).

Acoustics

We are providing building services and architectural acoustic consultancy for the entire development, providing detailed design advice at concept, schematic and detailed design.

The site is located within a road island and external noise levels are high. The limited space requires the maximisation of space by providing mixed use developments. This produces adjacent spaces that require careful acoustic design as, for instance, there may be squash courts next to apartments or generator rooms next to dining rooms.

We worked closely with the architects and design team to create an acoustically sound design from outside to inside. The design considers: façade and external walls; internal walls and floors; reverberation within critical spaces; internal building services noise and vibration control; and environmental noise emissions

We are managing the acoustic design and assessment of mechanical and electrical control systems, including HVAC

and related plant, and providing the building acoustics design advice, which will include airborne and impact sound insulation, reverberation and speech intelligibility.

Managing Waste

We are also designing the waste management strategy (WMS) for the Dubai Centre District Development; which includes an overall strategy to be followed and the implementation of such strategy on the design of each individual building in compliance with local regulations and with LEED.

The WMS encompassed all the different waste streams generated within the development, and the management of such streams in an integrated, cost effective and sustainable manner. It is also in line with the key principles of the waste hierarchy, so that recycling is encouraged and diversion of valuable waste from landfill is achieved. We provided detailed design advice at concept, schematic and detailed design phase.

The Outcome:

To date we have submitted acoustical and waste reports for the detailed design stages of the 3* and 4* hotels plus the first office building. Construction of this phase is due to be completed in 2012. We have also helped the design teams to negotiate the maze of Hotel Operators acoustic specifications. The DWTC has a finish date circa 2015.

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