

Title: Abu Dhabi low carbon solar curtain wall design

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What is Al Bahar towers?

Al Bahar Towers, designed by Aedas in Abu Dhabi, features a responsive facade inspired by the traditional Islamic mashrabiya to reduce solar gain and glare in the region's extreme climate.

How did Aedas Architects design Abu Dhabi's Al Bahar towers?

To address this, Aedas Architects designed a responsive facade for Abu Dhabi's Al Bahar Towers, drawing inspiration from the mashrabiya, a traditional Islamic lattice shading device. Completed in June 2012, the 145-meter towers feature a Mashrabiya-inspired shading system, developed by Aedas' computational design team.

Is Abu Dhabi the world's most sustainable eco-city?

It is built on a lofty premise - to be the world's most sustainable eco-city. Conceptualised by renewable energy company Masdar and funded by the Abu Dhabi government, the city has been billed as a carbon-neutral urban centre fuelled by green power.

Do al Bahr Towers control solar heat gain and optimise daylight?

ABSTRACT: This paper presents the Al Bahr Towers recently completed in Abu Dhabi. It describes the control solar heat gain and optimise daylight within the buildings. The paper reports the studies carried out to mitigate the risks inherent in implementing a novel shading system in a large building project.

The shading system, which looks like a curtain wall, is positioned on an independent frame, two meters away from the building's exterior on a separate frame. Each ...

Masdar City's eco-friendly buildings -- constructed with low-carbon cement, recycled aluminium, and other sustainable materials -- are designed to reduce energy and ...

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But it's at the core of what's described as the "world's first net-zero energy mosque," in Abu Dhabi, which is planned to open in October and is designed to operate with ...

Our focus here is on design: how the geometry, detailing, and specification of curtain walling systems can be

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optimised to reduce carbon without compromising cost-effectiveness.

The document summarizes an innovative adaptive facade system called the Mashrabiya installed on the Al Bahr Towers in Abu Dhabi. The Mashrabiya facade wraps around the towers and ...

Curtain walls play a significant role in sustainable building strategies across the Middle East by combining energy efficiency, adaptive technologies and material stewardship.

The three-winged towers are covered with blue tinted glass curtain wall facade, which allow for large amount of solar heat to pass through it inside the building as appearing ...

Experts recommend our curtain wall systems for sleek glass curtain wall installations because of their exceptional performance. Our designs allow ...

Major developments in Dubai and Abu Dhabi - such as Dubai Creek Harbour, Expo City Dubai, and Masdar City - are showcasing advanced curtain wall systems that combine ...

Experts recommend our curtain wall systems for sleek glass curtain wall installations because of their exceptional performance. Our designs allow for more natural light, reducing the need for ...

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