



perspective rendering of bridge "lunar cycle" lighting phases

The Dubai Sixth Crossing Bridge connects Bur Dubai to Deira, in Dubai UAE. At 201 meters high, it will be the largest single-arch span bridge in the world when complete. This bridge is being built at the cost of four billion dirhams and will be a significant feat of engineering internationally. The bridge is 1.235 kilometers long, and 86 meters wide. It has six lanes of traffic in each direction and two track lines.

We used the crescent moon as our conceptual influence and for inspiration. The crescent moon is a significant symbol in Islam. The waning of the intensity of light reflected from the bridge arch surface is synchronized with the levels of light reflected by the moon at each lunar phase. Reflections of the illuminated

arch in the water beneath the bridge complete the "circle" of the full moon's profile.

The design goal was to create the biggest "moon-dial" in the world. Our challenge was to establish a system for controlling the change of light levels throughout the 29.5-day lunar cycle. Gradations of light were achieved by a complex switching system with multiple layers of light. We developed a separate lighting scene for each phase of the moon's illumination, including the full, gibbous, half, crescent, and new moons. The lighting of the bridge arch returns with the appearance of the crescent moon, significant to the identification of the waxing crescent, which is the most significant phase of the moon for Islam.

SHEIKH RASHID BIN SAEED CROSSING

CLIENT	RTA 2008 - 2022
ARCHITECT	Dubai
YEAR	AWA,
LOCATION	FXCollaborative
VISUALS	