

MGM Mirage CityCenter – Block A

Las Vegas, Nevada

Owner
MGM Mirage

Executive Architect
Gensler

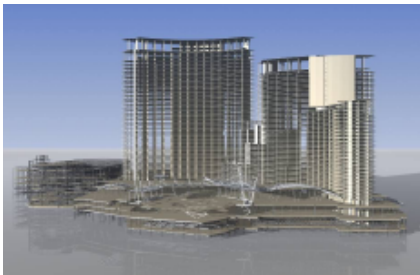
Design Architect
Pelli Clarke Pelli Architects

Production Architect
HKS

Completion Date
2009

Construction Cost
\$7 billion (estimated)

Total Area
20 million sf



Thornton Tomasetti is providing structural engineering services for the LEED Gold certified Aria Hotel/Casino project, Block A, the crown jewel of the 76-acre MGM CityCenter development on the Las Vegas Strip. It consists of a 61-story, five-star hotel tower of unique intersecting curved wings with 4,000 rooms and elegant entrance canopies, a convention center, a casino, a theatre, a retail podium, a bridge, and a central plant serving the entire complex. The resort-casino also features approximately 300,000 square feet of technologically advanced meeting and convention space.

Structural systems varied to suit the multiple building functions. Convention Center with structural steel long-span trusses providing column-free spaces and cantilevered to support a signature glass facade 500 feet long and 70 feet high. The hotel tower post-tension concrete floors are shaped as intersecting arcs to create four wings of varying heights, served by three separate elevator cores. This provides optimal guest access and required complex analysis to control differential movements of the four wings and cores during wind and seismic events.

The MGM CityCenter Development is the biggest construction project in the U.S., with a total project cost of more than \$7 billion.