

U.S. Olympic & Paralympic Museum

Location: Colorado Springs, Colo.

Size: 60,000 sq. ft

The new United States Olympic and Paralympic Museum in Colorado Springs is a tribute to the athletes and the spirit of the Olympic and Paralympic Games. The lead designer at New York City's Diller Scofidio + Renfro sketched out a vision of twisting angles and swooping lines that were meant to capture the motion of a discus thrower at the base of the New World Olympus: Pikes Peak. The iconic façade, made up of 9,000 diamond-shaped panels, creates a sense of motion – fitting for a space dedicated to elite athletes. No other material could have brought the building's complex shape and sleek façade to life like steel did.

Challenges

The design and construction of the United States Olympic and Paralympic Museum faced significant challenges due to its unconventional shape and complex geometry. The use of steel allowed architects and engineers to build its unique load paths and leaning structure ensuring stability and successful completion of the project.



Benefits of Steel Construction



Versatility: Steel's versatility allowed the museum's design to incorporate complex shapes, such as spiraling floors and sloping columns, to achieve a dynamic, modern look worthy of elite athletes.



Structural strength: Long steel trusses provide large, open spaces that offer flexible exhibit options. The framing and façade both lean away from the building's center.



Efficient construction: Design and construction are team sports. Bringing the detailer, fabricator, and erector in early streamlined the whole process – particularly when a concrete core was misaligned by 5 in.



Getting in shape: Steel's ability to be easily manipulated, cut, and rewelded made it easier to create the four parts of the building's pinwheel shape.



Distinct aesthetic: The façade's 9,000 panels evoke an athlete's wardrobe. Each panel has unique connections of exterior walls to roof and floor elements – all accommodated more easily with a custom clip.



Sustainability: American structural steel members contain at least 93% recycled content and are 100% recyclable, making it a material that is circular for generations.

The United States Olympic and Paralympic Museum showcases the unique benefits of steel construction, demonstrating its versatility, efficiency, sustainability, and aesthetic appeal. Like a true athletic team, the architects, engineers, steel fabricator, detailer, and erector worked together to achieve innovative and sustainable design solutions, while celebrating the Olympic and Paralympic Games and the athletes themselves.



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