CASE STUDY: EASE OF USE

DENVER INTERNATIONAL HOTEL & TRANSIT CENTER
8500 Peña Blvd, Denver, CO 80249

Completed: 2015
Project Size: 758,000 sq. ft.
Project Cost: $385 million
Project Owner: Denver International Airport

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Keeping travelers safe and secure is every airport’s top priority. The Denver International Airport’s new hotel and transit center prioritizes safety in a unique and beautiful structure. The design of the 519-room Westin Denver International Hotel draws inspiration from the wings of birds in flight, soaring high above the plaza and iconic tents of the Jeppesen Terminal. How did builders achieve such a dramatic design feat without sacrificing the strength or durability of the structure? They built with concrete.

01. Meeting the needs of a unique design.
 Builders used complex mix designs including high strength, self-consolidating and lightweight concrete for the transit and hotel canopy abutments, the hotel ballroom’s transfer beams and slab and the structure’s sloping roof deck.

02. Using concrete to achieve a sloping roof.
 Concrete was pumped through 850 feet of the system to create the structure’s sloping roof deck. Concrete strips were then laid up the slope, allowing for the roof to be finished in a timely manner and reducing the risk of avalanching concrete.

03. Exposing concrete for its beauty.
 Many of the walls and columns within the structure are “architecturally exposed,” requiring a clean and attractive finish.

04. Building safety is the highest priority.
 Beyond being able to fulfill the project’s design challenges, builders chose concrete for its fire resistance and strength.