



Expanded Shale, Clay and Slate Institute  
Rotary Kiln Structural Lightweight Aggregate

# Intermountain Medical Center (IMC) (Murray, Utah)



<b>OWNER</b>	Intermountain Healthcare Salt Lake City, UT
<b>ARCHITECT</b>	Anshen + Allen San Francisco, CA
<b>GENERAL CONTRACTOR</b>	Wadsworth Brothers Salt Lake City, UT
<b>STRUCTURAL ENGINEER</b>	Reaveley Engineers & Associates Salt Lake City, UT
<b>READY MIX PRODUCER</b>	Geneva Rock Products Salt Lake City, UT
<b>PROJECT SIZE</b>	1.3 million square feet

At \$362 million, the Intermountain Medical Center (IMC) was the largest commercial building project at the time of construction in 2007 in Utah. Approximately 12,350 tons of structural steel was used throughout the 1.3 million sq. ft. hospital campus which included a heart center, tertiary hospital, patient care tower, oncology center, ambulatory surgery center and a women’s and newborn center.

The largest building in the project was composed of a four-story base that supported the eight-story heart center and the 16-story patient care tower. The Intermountain Medical Center is the flagship hospital for Intermountain Health Care, one of the leading health care providers in the nation.

IMC is located along the Wasatch Fault, an active fault capable of producing a magnitude 7.3 earthquake. In the event of a large earthquake, structural lightweight concrete was specified to reduce seismic demands and dead loads on horizontal framing members, columns and footings.

In addition, high strength-to-weight ratio of structural steel made it ideal for seismic design by limiting building mass. IMC is the largest project to date in the United States constructed with Buckling Restrained Braced Frame (BRBF’s) technology. Two of the test braces experienced cyclical loading at forces above 1.3 million lb. IMC’s construction was complete in late 2007.

## PROJECT REQUIREMENTS

- ❏ Pumpable structural lightweight concrete over steel deck
- ❏ Design minimum F’c strength — 3000 psi @ 28 days
- ❏ Design equilibrium density — 110 +/- 3 lb/ft<sup>3</sup>