

LAKWOOD CHURCH



PROJECT OVERVIEW

Marek Location: Houston
Project Location: Houston, Texas
Project Sector: Religious
Architect: Irvine
General Contractor: Tellepsen

Transforming a house of hoops into a spiritual sanctuary involved a complete overhaul of the arena's interior. To optimize the schedule, design began just a year before groundbreaking and continued well into construction, which started before final documents were complete.

The Lakewood Church project Scope of Work consisted of complete renovation of the existing Summit/Compaq Center, the former home of world champion Houston Rockets and a Houston Landmark for many years, and the addition of a new five story building on the east side of the complex.

The renovation work include installing 45,000 sf of load bearing sound isolation ceilings under the existing floor seating and above the basement level offices and classrooms that accommodated the new suspended MEP work serving the classrooms and offices. Marek used 12 & 14 gauge, 12 inch wide metal joists to frame the ceilings, then covered them with one layer of $\frac{3}{4}$ " plywood and gypsum board.

The Level One renovation included installing gypsum ceilings and furrdowns with drops of up

to 40 feet from existing structure, and as high as 60 feet AFF on a radius around the main structure of the arena. The gypsum finishing was mostly Level 5 due to natural sunlight coming in through all the glass exterior walls.

The Five Story building addition housed many offices and the Media Center, including recording studios that were all sound sensitive and required special attention to sound isolation and sound proofing.

Most framing conditions such as sound ceilings and main lobby ceilings had to be specially engineered by the Marek Team, which included a registered structural engineer.

The LED screen above the pulpit is 33 ft wide by 19 ft tall; the two above the waterfalls are 20 ft wide by 11 ft tall. To support the screens and the broadcast-scale lighting configurations, crews installed a three-story catwalk system directly over the stage, requiring the addition of plated roof truss members and reworking connections to carry the system's additional weight.

Approximately 15,000 sq ft of acoustical material was worked into the catwalks to help deaden reverberations and enhance sound. The hardwood floors were replaced by 50,000 sq yds of carpet and warm casework was added to further soften the space.

Tellepsen Builders and its 88 subcontractors stepped up to the new schedule.

"We picked the subs we knew we could get the manpower out of and knew would perform," Scardino says.

- Total seating capacity: 16,000
- Total capacity of "Kid's Life" area: 5,000
- Total man hours expended on the project: Approximately 1.4 million
- Total number of contractors and consultants hired by Irvine Team: 50
- Emmy award winners brought in as consultants: 2
- Length of total low voltage cable used: 57 miles
- Amount of air cooled in completed building: Over 1 million cubic feet per minute
- Total carpet laid in the facility: About 50,000 square yards
- New and existing light fixtures in the complex: 7,000
- Number of doors in the new facility: 1,000
- Number of new toilets that have been installed in the new facility: 296

- Total number of waterfalls in the interior of the building: 2
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