

Sound Masking in Low Plenum Ceilings: A Goldman Sachs Case Study

How Soft dB solved a hidden infrastructure constraint inside Goldman Sachs' 4th-largest global office, without touching the ceiling.



CLIENT Goldman Sachs · **LOCATION** Salt Lake City, UT · **SCOPE** Floors 4–7 & 14 ·
BUILDING 111 S. Main (SOM, LEED-certified)

The Building



111 Main isn't a typical office tower. Designed by Skidmore, Owings & Merrill, the 24-story LEED-certified landmark in downtown Salt Lake City cantilevers over a performing arts theater starting at the fifth floor, architecturally striking, technically unforgiving.

It's also where Goldman Sachs runs one of its most significant North American operations, with roughly **2,500 employees** on-site every workday. Open trading-style floors. Glass-walled meeting

rooms. Collaborative work zones. Conversations are happening everywhere, all the time.

In that environment, acoustic performance isn't a design preference. **It's an operational requirement.**

The Problem Most Teams Don't Catch Until It's Too Late

Modern commercial construction has a dirty secret: **plenum space is disappearing.**

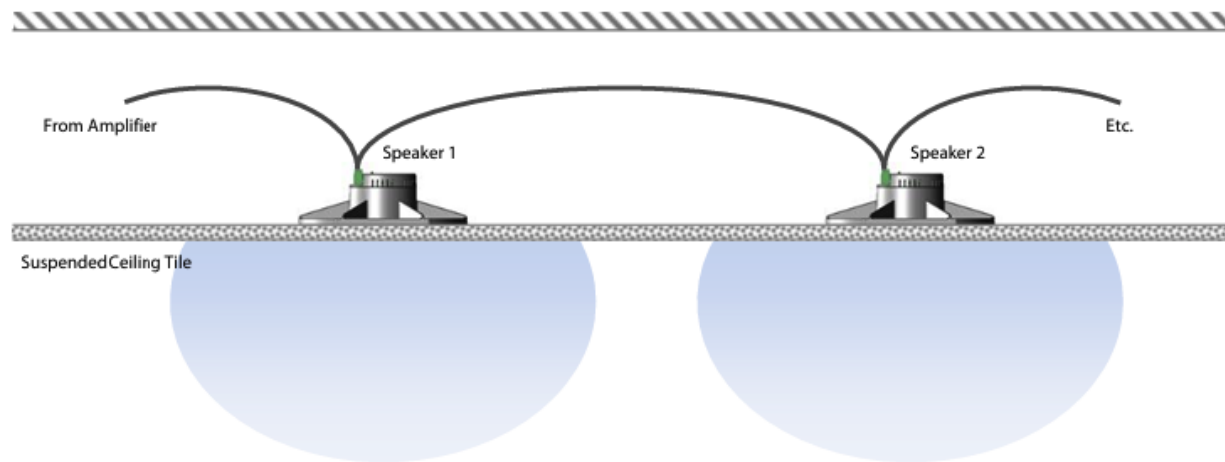
Ceiling cavities that used to offer generous clearance are now packed with mechanical, electrical, and data infrastructure. Conventional flush-mount speakers need room to breathe. At 111 Main, that room simply didn't exist across the Goldman Sachs floors.

Forcing a standard speaker layout into a constrained plenum means one of three outcomes: compromised positioning, uneven coverage, or visible hardware that no architect or client will sign off on.

"The ceiling wasn't cooperating. So we made it part of the solution."

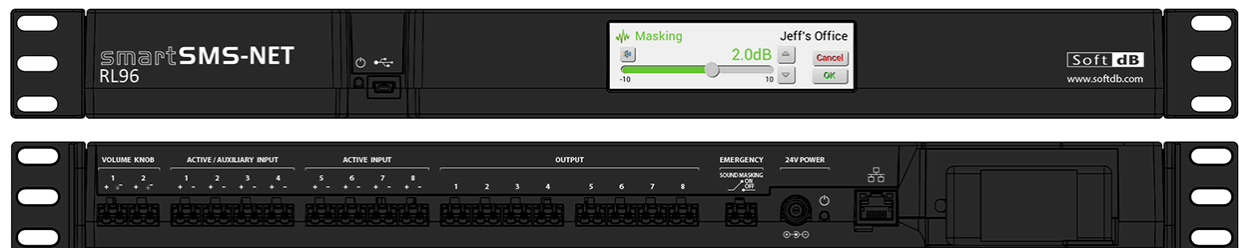
The Solution

Rather than working around the building, Soft dB worked *with* it, deploying the **SMS-HDN hidden speaker** across all five floors, managed by a single **RL96 multizone controller**.



SMS-HDN · Hidden Plenum-Mount Speaker The SMS-HDN mounts directly to the back of an existing ceiling tile, with no cutouts, no grilles, and no visible hardware. The tile itself becomes the radiating surface, producing smooth, diffuse coverage across the entire zone. Ideal for constrained plenums where conventional speakers simply won't fit.

RL96 · Multizone Sound Masking Controller A five-floor system with 2,500 occupants and varying acoustic profiles across every floor isn't a plug-and-play install. The RL96 manages up to 8 independent zones from a single unit, each with its own EQ, adaptive masking response, and integrated paging/BGM. Facility teams can adjust levels by zone directly from a built-in touchscreen, no technician required.



The Deployment

Every floor presented a distinct acoustic challenge. The RL96's per-channel architecture made it possible to tune each zone independently, accounting for differences in ceiling height, furniture density, partition layout, and occupancy type.

Floor	Challenge	Solution
4	Limited plenum depth throughout	SMS-HDN across full floor plate
5	Cantilever begins; constrained ceiling cavity	SMS-HDN, dedicated zone
6	Variable acoustic profile	SMS-HDN, independent EQ tuning
7	Masking + paging + BGM required	Integrated through shared SMS-HDN infrastructure
14	Upper-floor separation from lower zones	RL96 channel allocation adjusted accordingly

What 2,500 People Experience, Without Knowing It

The best sound masking system is one nobody notices. That's the benchmark.

At Goldman Sachs' 111 Main floors, the acoustic environment now matches how the space is actually used:

- **Speech privacy** where sensitive conversations happen
- **Distraction reduction** across open collaborative floors
- **Acoustic comfort** throughout; no hotspots, no dead zones, no uneven coverage



Why This Matters for Your Next Project

If you're specifying, designing, or managing a space with shallow plenum depths, open floor plans, or mixed-use acoustic zones, the constraints at Goldman Sachs aren't unusual. **They're increasingly the norm.**

Soft dB designs and manufactures adaptive sound masking systems for complex commercial environments across North America.

See if your project is a fit: softdb.com/sound-masking/