

LUNCH AND LEARN | 1 HOUR



Quiet Is Not Private

Speech Privacy and Sound Masking in Corporate Offices

Presented by **ALEX VARGO, FOUNDER, THE OFFICE ACOUSTICS COMPANY**

The Office Acoustics Company | theofficeacousticscompany.com

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Course Description

Hybrid work has turned the office into a place for collaboration and video calls, while open plans, glass and exposed ceilings make speech carry farther than ever. This course explains speech privacy as a relationship between speech and background sound, introduces the Absorb, Block, Cover framework and its ratings, and applies them space by space to corporate offices. Participants will learn where speech leaks, how design supports confidentiality for HR, legal and business information along with occupant focus and well-being, and where fixed and adaptive sound masking help or do not belong.



AUDIENCE

Architects, interior designers,
engineers, owners



LEVEL

Introductory to intermediate



FOCUS

Headquarters, regional offices and
hybrid workplaces

Learning Objectives



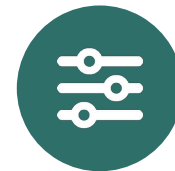
Explain why speech privacy depends on the relationship between speech level and background sound, and why quiet, modern spaces are often less private.



Apply the Absorb, Block, Cover framework and interpret the ratings behind it (NRC, AC, STC, SPC, Privacy Index) to protect occupant well-being.



Identify where confidential business, HR and client conversations leak in open and hybrid offices, and select design strategies that support confidentiality, focus and well-being.



Evaluate where fixed and adaptive sound masking should and should not be used in corporate offices, including conference rooms, video rooms and life safety systems.

Our Hour Together

Part 1

How Speech Privacy Works

Signal and background, the ABCs, the ratings, and how masking is tuned

25 min

Part 2

Corporate Office, Space by Space

Hybrid work, where speech leaks, and the quick fix for each space

25 min

Wrap Up

Takeaways and Questions

Design meeting questions and open Q&A

10 min

PART 1

How Speech Privacy Works

The physics, the tools, and the numbers behind them

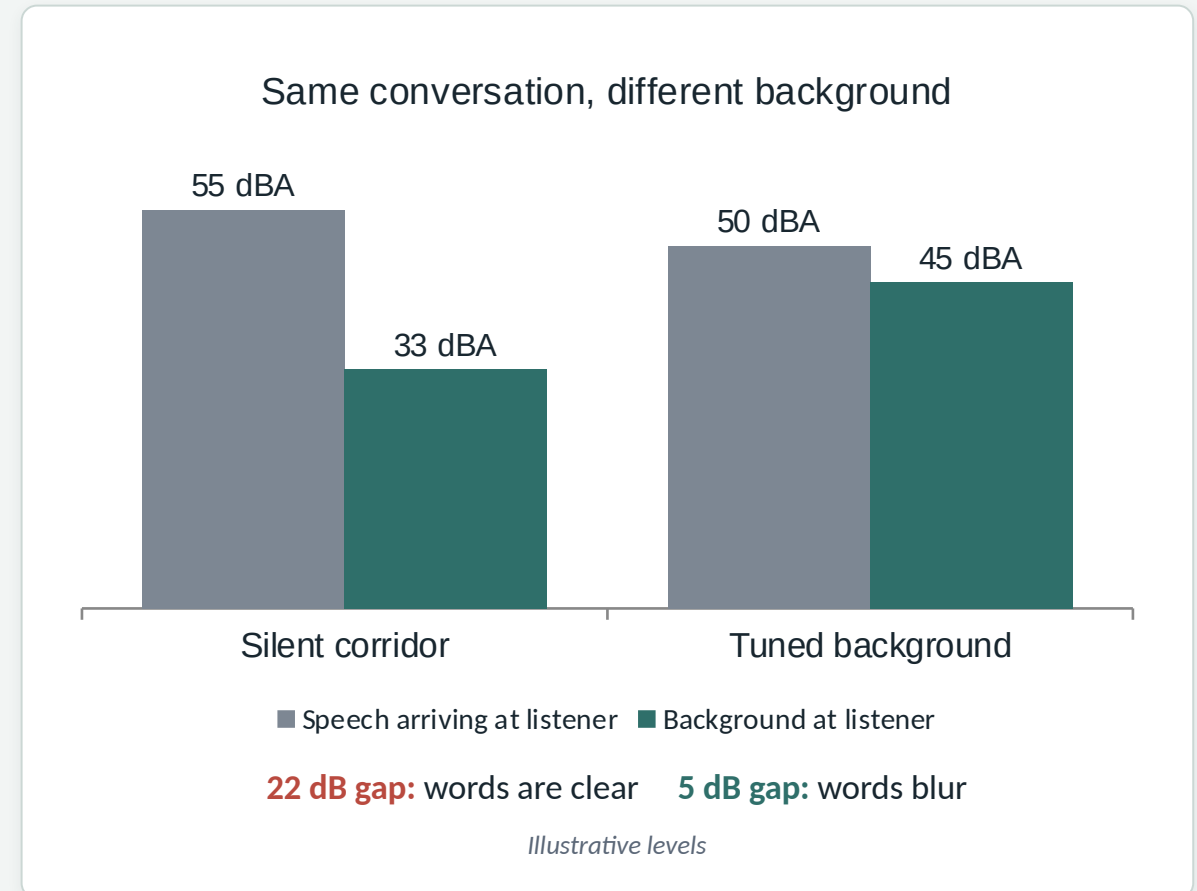
Quiet Is Not Private

Privacy comes down to one relationship at the listener's ear:

- How loud is the conversation when it arrives?
- How loud is the background where the listener stands?

When speech rises well above the background, the listener understands it. When the background is close to the speech, the words blur into sound the brain stops decoding.

Two ways to improve privacy: reduce the speech that arrives, or raise the background in a controlled, comfortable way.



What Changed in the Buildings We Design



Open plans

Fewer walls, more shared and flexible space.



More glass

Visual connection, with acoustic leaks at joints and doors.



Quieter buildings

Efficient HVAC and equipment removed the old background sound.



Higher expectations

Employees expect HR and client talks to stay private.

Each is a good design decision. Together, they let speech travel further and stand out more.

Conversations Are Information

The question is not "Can someone hear something?"

It is "Can someone understand something they were never meant to hear?"



Corporate

HR issues, strategy, deals,
customer data



Legal

Contracts, disputes,
investigations



Financial

Earnings, forecasts, M&A



R&D

Roadmaps and trade
secrets

What the Research Shows

~50% vs 18%

of open-plan occupants dissatisfied with sound privacy, compared with people in private offices

42,764 survey responses from 303 office buildings. The "ease of interaction" open plans promise did not make up for the lost privacy.

Kim and de Dear, Journal of Environmental Psychology, 2013

40% fewer

attempts at an unsolvable puzzle after three hours of low-level open-office noise

Stress hormone levels rose. The workers did not report feeling more stressed. The noise cost them without their noticing.

Evans and Johnson, Cornell University, Journal of Applied Psychology, 2000

Speaking the Language of Sound



Decibel

A logarithmic scale. About +10 dB sounds twice as loud. A 3 dB change is just noticeable.



A-weighted level

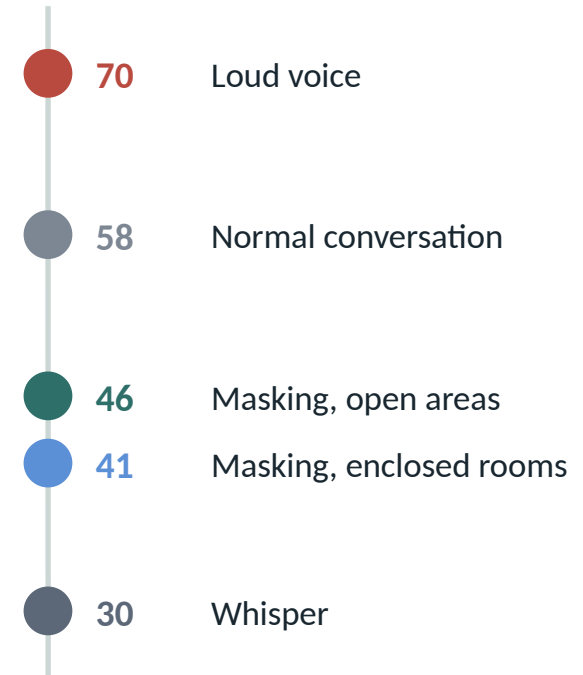
One number weighted the way human hearing responds. Masking is specified in dBA.



One-third octave bands

The frequency slices of a sound. One dBA number can hide a harsh or rumble spectrum.

Typical levels (dBA)



Masking values from GSA Sound Matters targets. Conversation and whisper levels are typical approximations and vary with distance and effort.

Privacy Is Not One Thing

Freedom from distraction

Nearby conversations stop pulling attention. Some speech may still be understood.

Open work areas, lobbies

Normal privacy

You can tell someone is talking and may catch a word, but can't follow it without effort.

Offices, service points

Confidential privacy

Conversations are essentially unintelligible to anyone outside the group.

Closed consult rooms

Speech security

Information is protected by regulation or contract; a motivated listener may try to overhear.

Secure and accredited spaces

How Privacy Is Measured

Open plan spaces: ASTM E1130

Rating	Articulation Index	Privacy Index
Confidential	0.05 or less	95% or more
Normal	0.20 or less	80% or more
Poor	Above 0.20	Below 80%



A Privacy Index of 80% is normal privacy, not confidential. That distinction trips up a lot of marketing material.

Closed rooms: ASTM E2638, Speech Privacy Class

SPC	Category	A listener outside can expect
70	Minimal privacy	Speech frequently intelligible
75	Standard privacy	Occasionally intelligible
80	Speech security	Very rarely intelligible
85	High security	Essentially unintelligible
90	Very high security	Unintelligible, essentially inaudible

SPC adds the room's level reduction to the background outside, so it captures the speech-to-background idea directly.

SPC categories per Gover and Bradley, National Research Council Canada. Other SPC tables use different listener assumptions; name the table you cite.

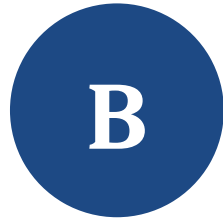
The ABCs of Speech Privacy



Absorb

Reduce the speech that reflects off ceilings and hard surfaces toward a neighbor.

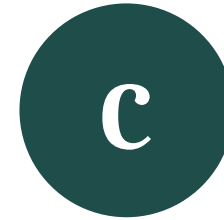
Ceilings, wall panels, soft finishes



Block

Stop sound from passing between spaces, and seal the paths around the barrier.

Walls, doors, glass, plenum barriers, seals



Cover

Raise the background at the listener with a tuned, comfortable masking sound.

Engineered sound masking

Take away any one and privacy drops, because each tool covers a gap the others leave. (The framework behind GSA's Sound Matters guidance.)

Absorb: Start With the Ceiling



Where absorption does the most good

The ceiling first. It is the largest surface and the main reflection path. GSA calls for NRC 0.90 or higher over open office ceilings.

Ask for AC in open plans. Articulation Class describes how well a ceiling limits speech reflected between workstations.

Walls at speaking height in meeting rooms, glass offices and corridors.

Open ceilings: exposed deck looks great; budget baffles, clouds or sprayed treatment on day one.



Absorption traps

Treating NRC as the whole story. Ask for the full coefficient table.

Foam finishes without fire testing. Foam plastics typically need NFPA 286 room-corner testing under the IBC.

Expecting it to stop sound through walls. That is blocking.

Over-treating. A room that is too dead makes people raise their voices.

Block: The Weak Links Decide



Doors
Undercut or ungasketed doors are often the weakest element in the room.



Walls that stop at the ceiling
Sound goes up, across the plenum, and down next door.



Ducts and transfer grilles
Shared returns act like speaking tubes.



Glass and mullions
Gaps at joints and doors rarely match the adjoining wall.

STC is a lab number. Rooms perform in the field.

Partition STC	Typical experience next door
25 to 30	Speech easily understood
35 to 45	Loud speech audible, less clear
50 to 55	Normal speech generally private
60 to 65	Loud sounds barely audible

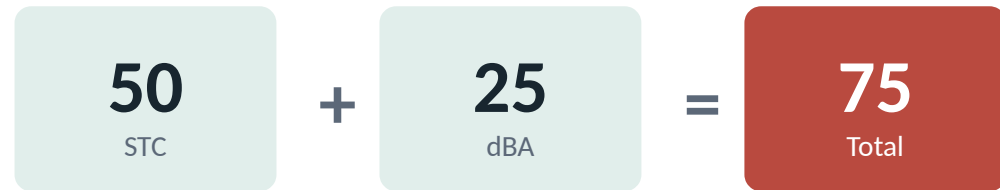
Descriptions assume a quiet background and a well-built room. Field ratings (ASTC, NIC) often land several points below lab STC once flanking paths are included.

STC descriptions adapted from Riverbank Acoustical Laboratories guidance. STC per ASTM E90 and E413; field ratings per ASTM E336.

Why Blocking and Covering Work as a Team

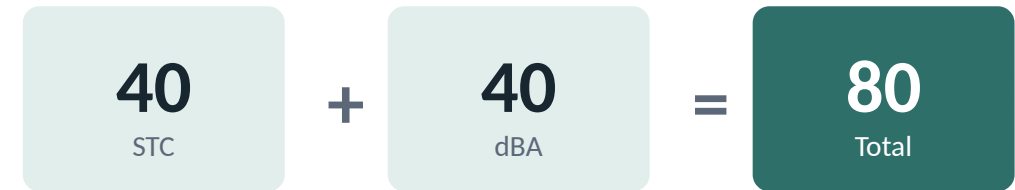
Wall STC + Background dBA at the listener ≈ 75 for basic speech privacy

An expensive wall, a silent corridor



Barely reaches the target. Any leak at the door or plenum and it falls short.

A standard wall, a tuned background



Beats the heavier wall, and the corridor background protects every room along it.

A consultant rule of thumb for screening, not a design method. It ignores flanking paths; critical rooms need a design and field test.

Cover: What Sound Masking Is, and Is Not



Sound masking is

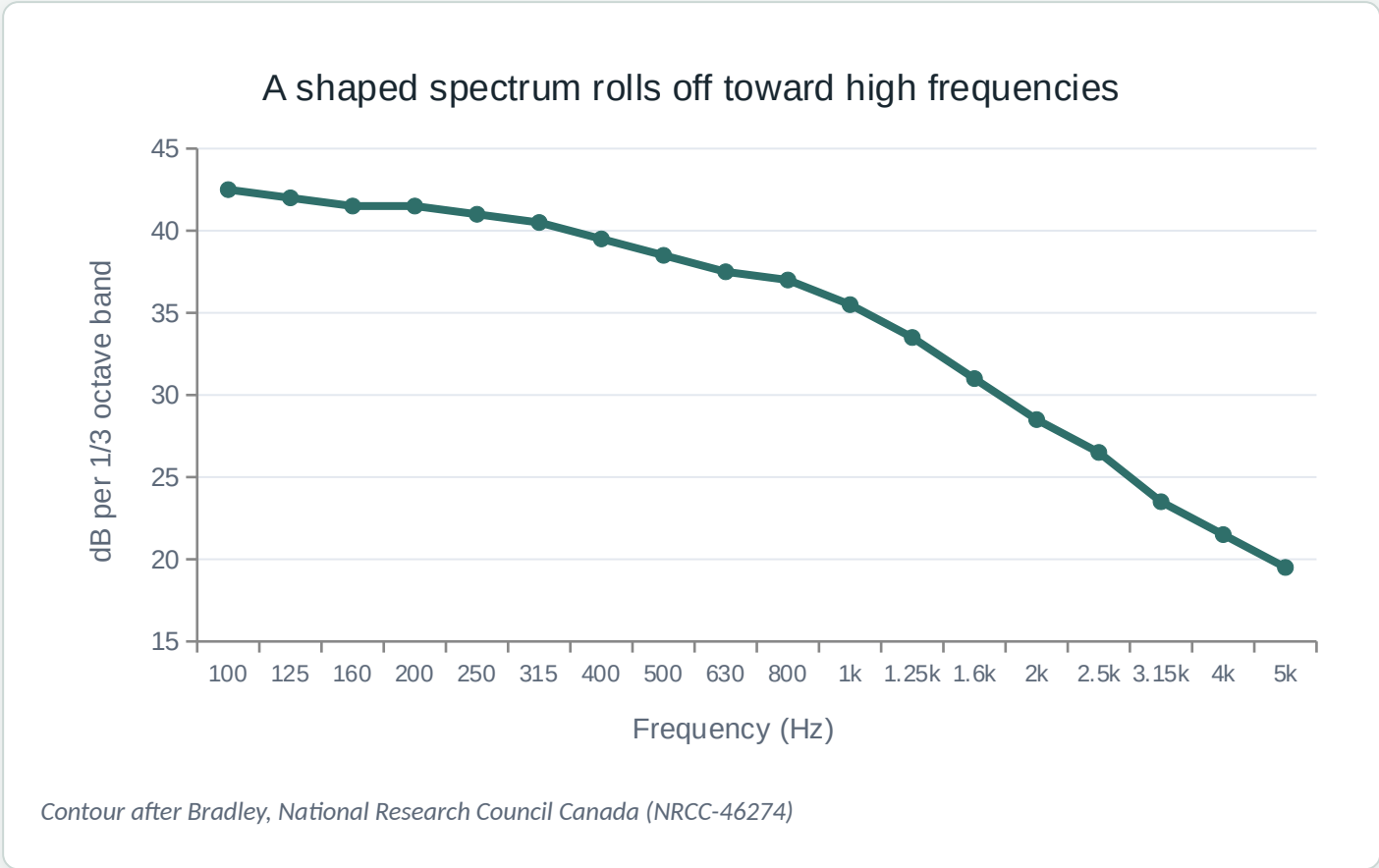
- An engineered background sound played through a network of speakers
- Shaped across frequency bands to cover the sounds that carry speech
- Tuned zone by zone and measured (ASTM E1573)
- Heard as soft, even airflow when done well
- A way to shrink the distance at which speech is understood



Sound masking is not

- White noise, which is harsh and hissy at privacy levels
- A way to reduce echo or reverberation (it adds sound)
- A replacement for walls, doors and seals
- A fix for loud or tonal HVAC noise
- Confidential privacy in an open plan on its own

Tuned, Not Just Turned On



Typical design targets

45 to 48 dBA

Open work areas

40 to 42 dBA

Enclosed offices

Below open levels

Corridors outside enclosed rooms, set to support the rooms

Specify tolerances for overall level and each band, zone by zone, and verify by measurement. An average that hides quiet spots leaves privacy holes.

Open and enclosed targets from GSA Sound Matters. Measurement and reporting per ASTM E1573.

Where Masking Should Not Go, or Needs Great Care



Classrooms and lecture rooms

ANSI/ASA S12.60 limits classroom background noise to 35 dBA so students can hear. Mask the offices instead.



Recording studios and audio labs

Content studios, podcast rooms and audio labs need very low background noise.



Conference, video and courtrooms

People inside need clear speech and microphones pick up masking. Mask the corridor outside.



Anywhere life safety depends on hearing

Masking, music and paging should mute when the fire alarm or mass notification activates.



Spaces for people with hearing loss

Added background sound can make conversation harder: senior living common areas, audiology suites.

Rule of thumb: put masking where the listener is, not inside the room you are trying to protect.

Design It, Tune It, Measure It

Plenum-mounted

Speakers above a suspended ceiling; the plenum and tiles diffuse the sound. Hardware stays hidden, but results depend on plenum depth, obstructions and tile performance.

Direct-field

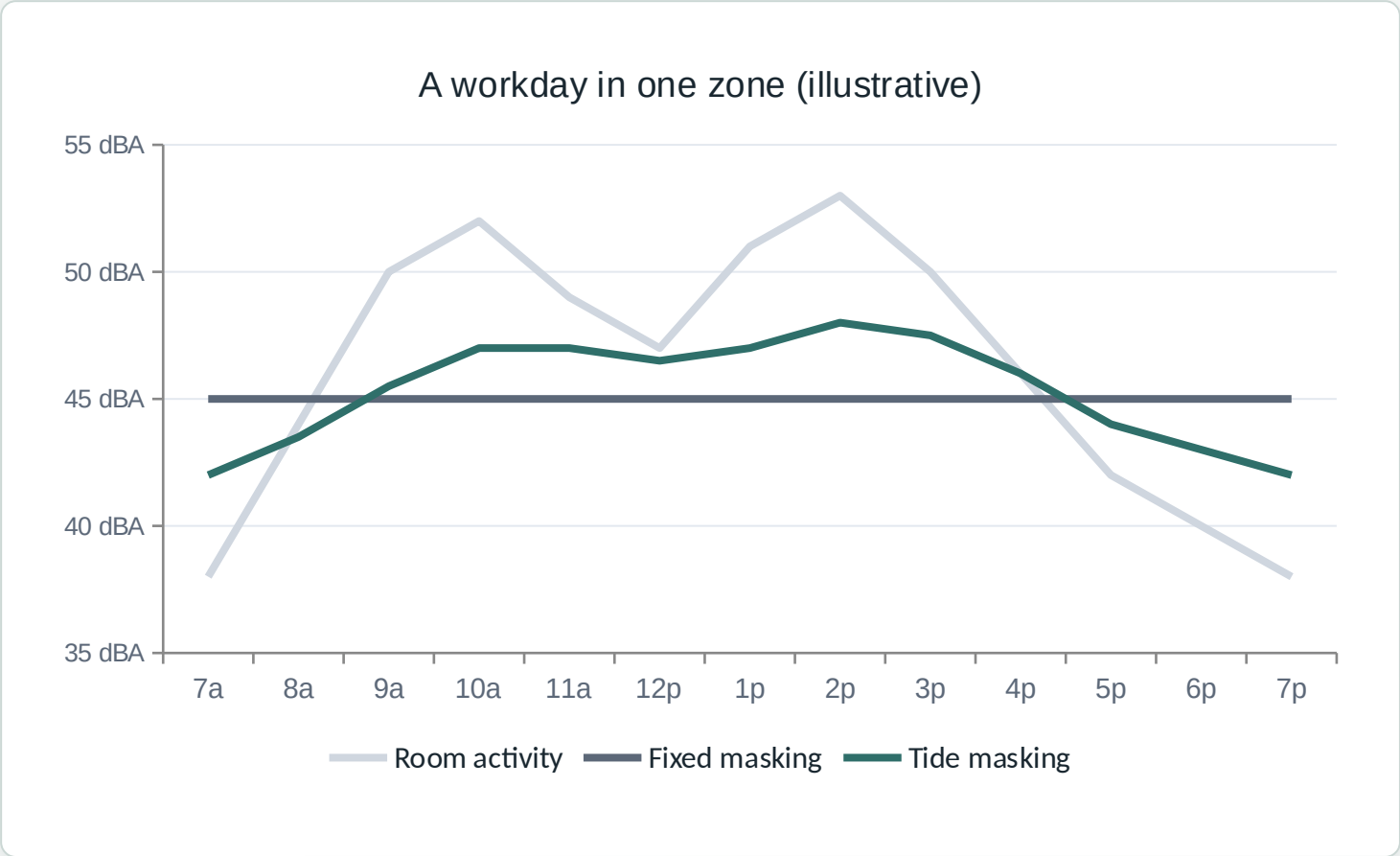
Small speakers in or on the ceiling plane facing into the space. Generally more uniform and controllable, and works with open ceilings, with visible devices.

The right choice depends on the ceiling, architecture, budget and the uniformity required.

Commissioning checklist

- ✓ Measure the background with masking off, so everyone knows what HVAC contributes
- ✓ Tune each zone to the target spectrum, not just the dBA number
- ✓ Check uniformity near walls, columns and transitions
- ✓ Listen: if you can locate a speaker by ear, adjust
- ✓ Ramp up gradually over days or weeks in occupied spaces
- ✓ Document by zone and revisit after occupancy

The Tide Principle





Quiet morning
Settles low, so no one notices it.



Busy afternoon
Rises so conversations stay covered.



Always in bounds
Inside set limits, changing too slowly to hear.

Getting the Tide Right



Sense each zone

Sensors measure ambient conditions where people actually are, not one reading for the whole floor.



Set the shoreline

A floor and a ceiling around the design target, for example 42 to 48 dBA around 45.



Move slowly

Changes of a small fraction of a decibel per second, so occupants never hear a shift.



Verify and log

Measure it like any fixed system, and keep a history to see how zones behave over time.



Done poorly, a system that chases every noise becomes the distraction. Clear limits and slow rates are what make it disappear.

The Most Expensive Myths



"Quiet is private."



Silence makes speech easier to understand.



"Masking is just white noise."



It is a shaped, tuned, measured spectrum.



"Masking reduces echo."



Reverberation is controlled with absorption.



"We'll just use the HVAC."



It varies with load, has the wrong spectrum and often tones.



"STC 50 walls guarantee privacy."



Not with an undercut door, a shared plenum and a silent corridor.



"Privacy Index 80% is confidential."



Under ASTM E1130, 80% is normal. Confidential is 95%.

PART 2

Corporate Office, Space by Space

Headquarters and hybrid workplaces: what is at stake, where speech leaks, and the quick fix

Two Jobs: Protect Confidential Business, Protect Focus



Confidentiality

HR, legal and customer information

Performance reviews, investigations, disputes and customer data are discussed every day, and many of those conversations now happen through a laptop at a desk.

Trade secrets need "reasonable measures"

Under the Defend Trade Secrets Act, information only qualifies as a trade secret if the owner took reasonable measures to keep it secret.



Focus and well-being

Sound privacy drives satisfaction

The open-plan research from Part 1 shows privacy is a leading source of dissatisfaction, and noise affects stress even when people do not notice.

Published targets exist

GSA's Sound Matters gives masking, ceiling and room targets, and wellness certification programs such as WELL include sound criteria.

Defend Trade Secrets Act of 2016 (18 U.S.C. 1836); GSA Sound Matters (2011); WELL Building Standard sound concept.

Office Acoustics Guidance: The Straight Facts



What exists

- GSA Sound Matters targets: 45 to 48 dBA masking in open offices, 40 to 42 dBA in enclosed offices
- Ceiling guidance: NRC 0.90 or higher over open office ceilings, plus AC for open plans
- Wellness certification programs with sound criteria, including masking



What does not exist

- A building code that sets speech privacy for most private offices
- A privacy rule that certifies an office as "confidential"
- A way to make an open desk confidential with any single product

In most offices, privacy is a performance goal the design team sets. Put it in the owner's requirements early.

Hybrid Work Moved Confidential Calls to the Open Desk



The half-conversation problem

A video call at an open desk broadcasts one side of a confidential discussion to everyone nearby, and pulls in their chatter for the remote side.



Booths that leak

Many phone booths have a fan inside and an air path out. Check tested performance, and never place them next to the kitchen.



Collaboration next to focus

Floor paint does not separate zones. Distance, absorption and barriers do.

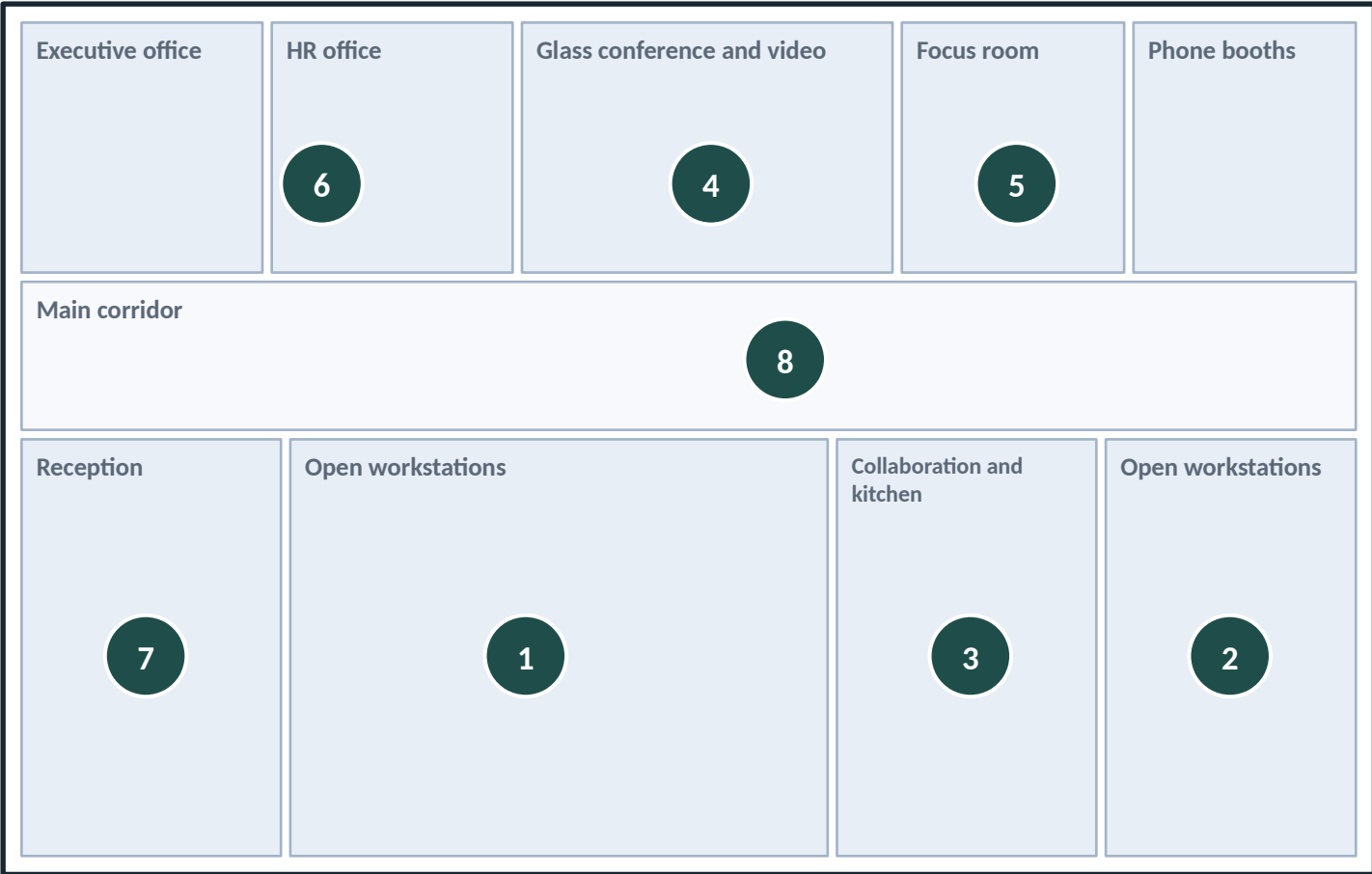


The conference room exception

Video rooms need low background noise so remote participants hear clearly. Mask the corridor outside, not the room.

Plan for calls: more small enclosed rooms, better booths, and a consistent background wherever people take calls at their desks.

Anatomy of a Hybrid Office: Where Speech Leaks



Simplified composite plan for discussion

- 1 Open workstations
- 2 Video calls from open desks
- 3 Collaboration zone and kitchen
- 4 Glass conference and video rooms
- 5 Focus rooms and phone booths
- 6 HR and executive offices
- 7 Reception
- 8 Corridor outside enclosed rooms

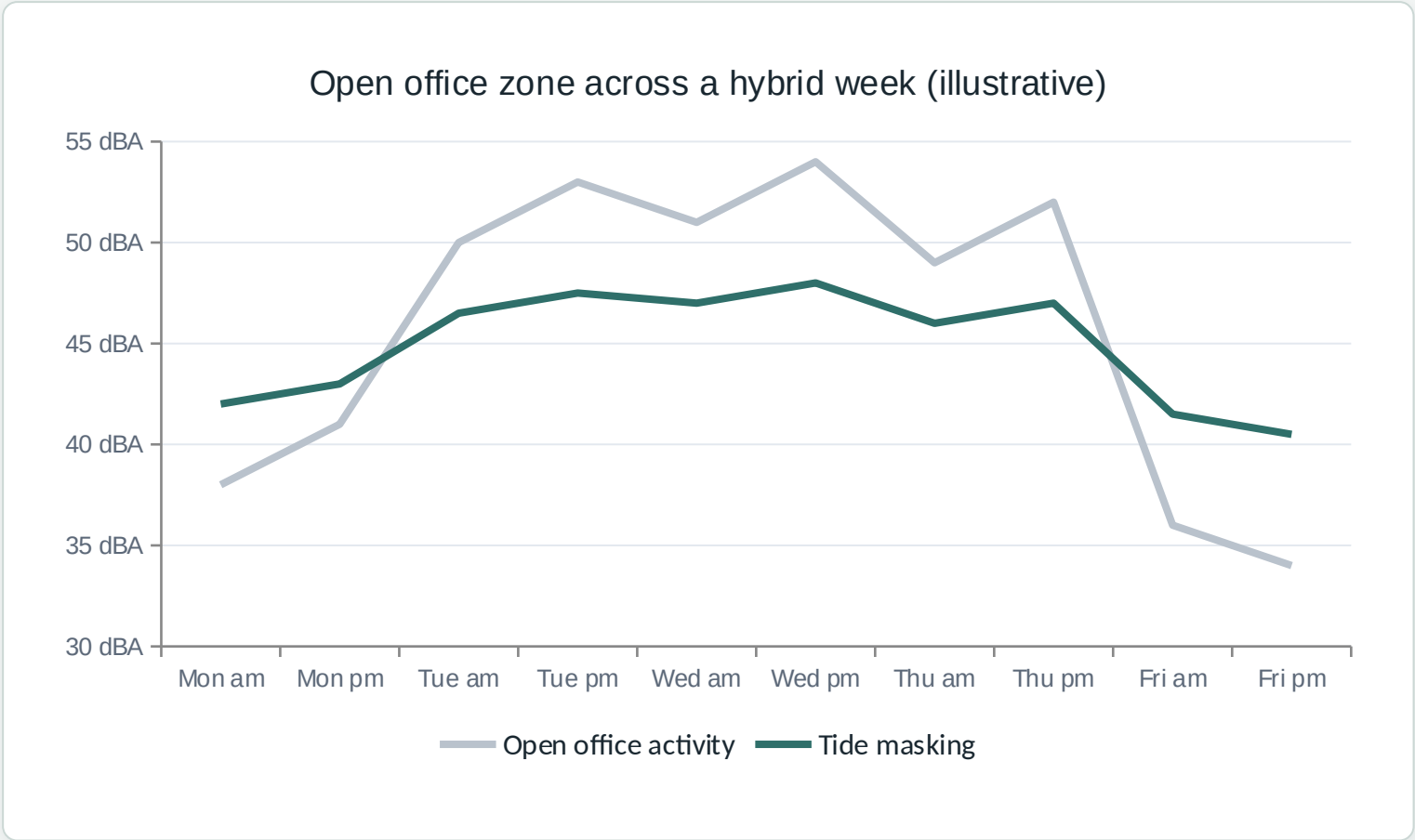
Character, Flaw and Quick Fix

Space	Character	The flaw	Quick fix
1 Open workstations	Rows of desks under an open or basic ceiling	Not loud on a meter, but every conversation is intelligible	High-NRC, high-AC ceiling or overhead treatment, panel absorption, masking at 45 to 48 dBA
2 Video calls from open desks	One side of confidential calls broadcast to neighbors	Nearby speech also leaks into the call	Consistent masking, desk orientation, headsets with good microphones, enough enclosed rooms for sensitive calls
3 Collaboration zone and kitchen	Loud, social hub placed in the middle of the floor	Floor paint is the only separation from focus areas	Distance, absorption and barriers between zones; locate away from heads-down desks
4 Glass conference and video rooms	Showpiece rooms facing the open office	Leak at glass joints and door gaps; masking inside hurts remote audio	Tested glass with sealed joints, walls to deck, low background inside, masking outside

Character, Flaw and Quick Fix

Space	Character	The flaw	Quick fix
5 Focus rooms and phone booths	Small rooms for calls and heads-down work	Fans inside, air paths out, placed next to the kitchen	Tested booths or built rooms with sealed doors, located away from loud zones, masking outside
6 HR and executive offices	Reviews, investigations, compensation and strategy	Share a corridor and a plenum with everyone else	Walls to deck or plenum barrier, gasketed doors, masking in the offices and corridor
7 Reception	Visitors, candidates and clients wait near work areas	Visitors overhear the open office and nearby rooms	Absorption, masking over seating, distance from HR and conference rooms
8 Corridor outside enclosed rooms	Circulation along every private office and meeting room	A silent corridor is the listening side of every room	Masking in the corridor supports the privacy of every room along it

The Tide in a Hybrid Office: A Week of Anchor Days



Tuesday to Thursday anchor days

The floor fills; masking rises so calls and huddles stay covered.



Lunch and all-hands peaks

Holds near its upper limit when the collaboration zone is busiest.



Quiet Mondays and Fridays

Settles low so the few people in the office never notice it.

The Quick Recipe for Corporate Office Speech Privacy



Map the conversations

Where do calls, HR talks and client discussions happen, and who sits nearby?



Absorb

High-NRC, high-AC ceilings or overhead treatment, especially under open decks.



Block

HR, executive and conference rooms: walls to deck, tested glass, sealed doors.



Cover

Masking in open areas and corridors; never inside conference or video rooms.



Let it tide

Adaptive masking with set limits for anchor days and quiet days.



Integrate and verify

Separate music and paging zones, mute on fire alarm, measure per ASTM E1573.

Traps We See in Corporate Office Projects



Turning masking up to fix a bad ceiling

Masking above the comfortable range draws complaints and still will not replace absorption.



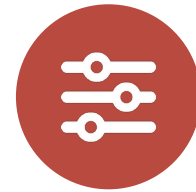
Treating phone booths as solved

Check tested performance, fans and air paths, and keep booths away from the kitchen.



Masking conference and video rooms

Remote participants need low background noise. Mask the corridor outside.



Leaving the system untuned

Installed but never balanced and measured, masking rarely performs as designed.

From the Field: A Marketing Agency



The situation

A marketing agency moved into an open office that looked fantastic. Within weeks, staff said they could not concentrate.

The change

A masking system was designed and tuned for the space and raised gradually so no one noticed the change.

The result

"It feels like the noise just faded into the background." The office was not quieter on a meter. The conversations simply stopped competing for attention.

WORTH KNOWING

People notice change, not steady sound

Occupants who are told "we are turning on the sound masking" often hunt for it and complain. Occupants who come back from a weekend to a slightly more comfortable office usually never mention it.

Plan a gradual ramp up over days or weeks in occupied spaces.

Questions for Your Next Corporate Office Design Meeting



What share of the day do people spend on calls, and where will they take them?



What NRC and AC are specified over the open areas, especially under open decks?



Which rooms are for confidential conversations, and what field performance do they need?



Are conference and video rooms excluded from masking and designed for low background noise?



How does occupancy swing across the week, and should the masking tide?



Who will measure and document the system at commissioning?

Key Takeaways



Quiet is not private

Privacy is the relationship between the speech that arrives and the background at the listener.



Use all three tools

Absorb, Block and Cover work as a system, and the ratings tell you whether they are working.



Plan for hybrid work

Calls at desks, collaboration zones and booths need the ABCs as much as private offices do.



Mask where the listener is, and let it tide

Open areas and corridors, never video rooms, rising on anchor days and settling on quiet ones.

Questions?

Thank you for spending the hour with us.

Alex Vargo | Founder, The Office Acoustics Company
alexv@officeacousticsco.com | 303.946.9381

LET'S TALK

theofficeacousticscompany.com

Email Alex

alexv@officeacousticsco.com

Book a lunch and learn for your team.