

How to get RID of your neighbour...

**The Fundamentals
of
Sound & Noise**

Presented by SoundProofDrywall.ca

Shhh!

Let's Learn, Have Fun & Get Quiet

- **My hope is to be informative and interesting to you.**
- **My purpose is to help you be a better, more informed consumer when you need a sound blocking solution.**

*“Why talk about **NOISE?**”* you might ask.

Because from the CEO who wants to hold a confidential meeting, to the home owner who wants privacy in the bedroom, you are all constantly affected by too much sound.

It's a difficult problem to fix!

So, WHAT'S happening?

In today's environment, with **Green Initiatives**, LEED and sustainability, more is being done with less, including in building design, where you are living in a more *condensed footprint* where walls are thinner and...

eventually, your privacy is compromised!



Not to mention...

The *technological advances* of music players and home entertainment systems, you can now “live the experience” in the privacy of your own home.



Combined, these changes cause serious conflicts!

In a culture where you don't even want to see your neighbour, much less hear them, you suddenly find yourself...*LIVING with them!*

VERY interesting, but so *what*?

It's a big issue in that noise is the #2 litigation issue in residential and multifamily construction

- Mold and moisture is #1
- Foundation settling is #3

Why are there so many “Noise” issues?

- Due to no design #1 [no thought]
- Due to poor design #2 [bad thought]
- Due to failed design #3 [poor execution]

Payout settlements average \$US32K per unit!!

And this affects me HOW exactly?

- Do you live in a noisy condo today?
- Will you buy a noisy house one day?
- Are your bedroom walls paper-thin?
- Can you hear the others?
- Or can *they* hear you?



STC's vs. dB's you say! ...*what?*

The professional call them STC's [Sound Transmission Class]

But the rest of the world calls them decibels [dB's]

~~ But one thing everyone agrees on ~~

“The more *you can't hear them*, the better off we will all be!”

Let's get a sense of dB LEVELS

Noise Level [Subjective]	Typical Sounds	dB	Reduction needed to produce quiet
Very quiet	Breathing	10	Typical wall gives only about 30 dB of <u>sound BLOCKING</u>
	Whispering	20	
Pleasantly quiet	Quiet library	30	0
	Quiet home	40	
Normal noise level	Normal Conversation at 3'-5' General office building interior	50	20
	Active bedrooms/offices 😊	50+	20+
Loud noise level	Vacuum cleaner A decent argument	70	40
	Noisy office; typical factory interior Rail car Home theatre, normal operation	80	50
	A nasty argument ☹️ Diesel locomotive Home theatre, loud sequences	90	60
	Hearing loss if sustained Near a jackhammer Car going around curve squeal Locomotive horn Typical Home theatres	100	70
	Rock concert speakers	110	80
	Near a jet engine THX Home Theatre peaks	120	90
Pain threshold	Cannon explosion	140	110

Sound & Noise: in BASIC terms

Sound and noise consist of:

- **Loudness** [volume of dB's]
- **Frequency** [high=alarm system; or low=base]

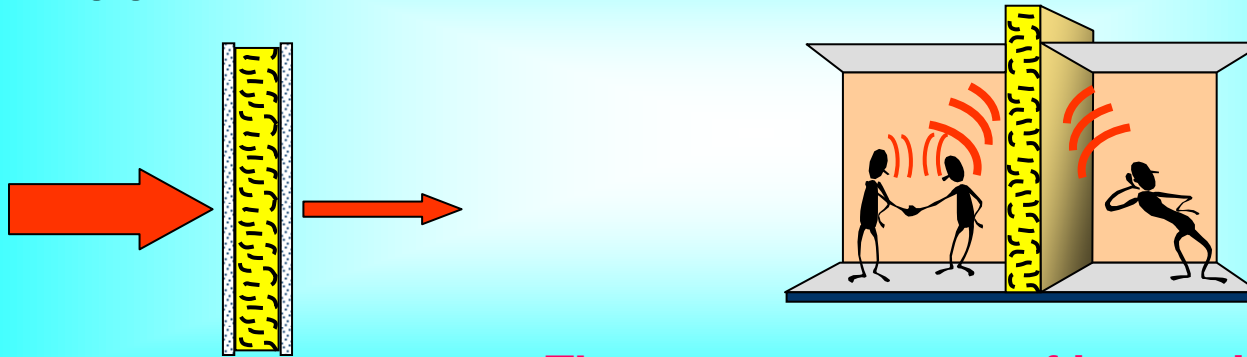
And can be controlled through:

- **Absorbing** [use finishes]
- **Blocking** [use mass and space]



Two main types of NOISE CONTROL

Sound **BLOCKING**: stopping sound from getting to the other room



There are new ways of improving your results!

Sound **ABSORPTION**: reducing the “pitch” or reflection inside a room



INTERESTING Sound Facts

Sound is **airborne acoustic energy**.

Although energy never disappears, by modifying its form ***you can manage it.***

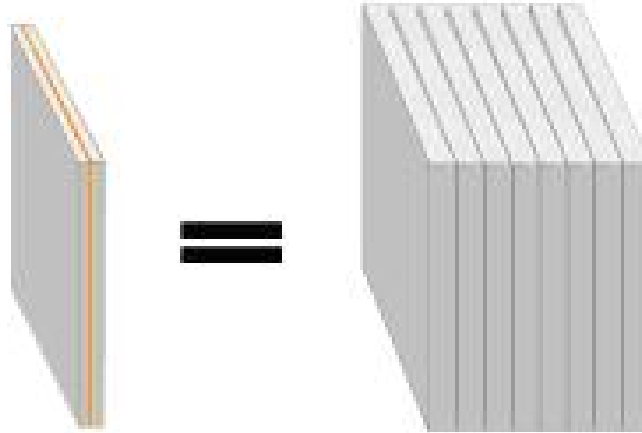
With its **visco elastic polymers**, engineered sound proofing drywall does just that - by ***converting acoustic energy into heat.***

And you can't hear heat!



That's RIGHT!

One Equals Eight™



One Layer SPD = 8 layers Type X

But what is the REAL difference?

Actual Change	Feels Like
2 dB	Not noticeable
3 dB	19% quieter: barely noticeable
6 dB	34% quieter: noticeable no impact
10 dB	50% quieter: clear difference; not enough
15-20 dB	75-87% quieter: huge difference

So what 's the PLAN *next time*?

Next time you have a NOISE-related issue:

- Don't add extra layers of drywall to the wall
- Don't tear down the wall to rebuild it
- Don't moving away [to another problem?]
- Don't kill someone [jail is noisy as well]
- Don't kill *yourself* [peace at last but enjoyable?... think not]
- And don't ignore the problem [typical answer]

Just simply think *Quiet...*

Sound Proofing Drywall...

Thank you for your interest.

**For further information, please contact
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Advancing Peace and Quiet... Nationwide

Shhh!