SOUND PROOFING DRYWALL EDUCATIONAL GUIDE

1. Where To Get Additional Information

- a. Collateral available
 - i. QuietStand Mini "1=8"
 - ii. Samples
 - iii. Architectural binder with product sheets etc.
- b. Web: <u>www.SoundProofDrywall.ca</u> > Education Page

2. Reality Check

- a. Why do people need quieter living and working spaces?
 - i. Privacy [business, bedroom]
 - ii. Solitude [sleeping, reading]
 - iii. Health [special needs, long term care]
 - iv. Enjoyment [home theatre, media room]
- b. What are their options
 - i. Adding additional layers of drywall to existing wall
 - ii. Reconstructing area of concern with batt insulation and RC channel
 - iii. Moving away [to another problem?]
 - iv. Killing someone [jail is noisy as well]
 - v. Killing yourself [peace at last but enjoyable?... think not]
 - vi. Ignore the problem [typical answer]

<< Ultimately, we'd like to believe that we save lives! >>

3. The A–B-C's Of Sound

- a. A = Stands for Acoustical every theatre has surface treatments to reduce the reflection of noise inside the theatre to make the left over sound "good." These wall panels, ceiling tiles etc. are "acoustical" in nature and do not enhance sound blocking. Any insulation used *inside the wall cavity*, will assist to getting rid of *interior wall echo*.
- b. $\underline{B} = \underline{Stands \text{ for Blocking}}$ this refers to keeping noise from entering or leaving a particular environment. This is what Sound Proofing Drywall does
- c. C = Stands for Covering up [or masking] this is when you create more noise to cover up other noise that you cannot get ride of. Like elevator music or a Scamp system that generates white or pink noise. A kind of a "hiss" in the background, but effectively this is really making more noise in general

4. Patented Technology

- a. How and why it works
 - i. Noise causes vibration [like your body in a loud night club, or the wall of a room with load music in it]
 - ii. When installed on studs, the Visco-Elastic Polymer allows layers in Sound Proofing Drywall to float on each other causing friction when noise hits it
 - iii. This friction [like rubbing your hands together] causes heat and this gets continually dissipated

- iv. This means that Sound Proofing Drywall has just converted
- airborne noise energy into HEAT ... and you can't hear heat
- b. Result that is why, in sound blocking terms:
 - 1. one sheet of Sound Proofing Drywall is the same as installing 8 sheets drywall
 - 2. one sheet of Sound Proofing Drywall is like using 14 batts of insulation.

5. Product Line up

- a. Walls
 - i. ¹/2" = for improvements such as for remodeling and renovation such nanny/granny suites, media rooms, bedrooms, bathrooms, offices [not code related]; for walls only; good for high frequencies.
 ¹/2" NOT FOR USE ON CEILINGS [will sag]; HANG VERTICALLY ON NEW CONSTRUCTION. Horizontal is fine when overlaying.
 - ii. 5/8" = for building to fire and sound for codes, as well as for improvement; for walls & CEILINGS; good for high frequency
 - iii. 1 3/8" = for base sounds and discretionary for home theatres; good for walls and ceilings; good for high and LOW FREQUENCIES
- b. Floors
 - i. Sound Proofing Wood: Airborne noise [5/8" retrofit or 1 1/8" structural T&G]
 - ii. Closed cell, extruded polyethylene foam: Structural noise [use floating with Sound Proofing Wood]
 - iii. Structural impact reducing adhesives [applied directly under tiles and hardwood to reduce heel noise]
- c. Pipes, HVAC
 - i. Visco-elastic vibration damping coating [put on pipes, HVAC, compressors]
- 6. **Sound Proofing Drywall Installation** Remember: "Where ever air goes, so does sound"

VERY IMPORTANT: Sound Proofing Drywall must be on studs, or at the very least be furred out 1 5/8"! If there aren't any somewhere behind Sound Proofing Drywall [directly or indirectly] then *there will be NO benefit*! Without being able to bend or flex, Sound Proofing Drywall can not convert energy.

- i. Install Putty behind switches, plugs and around plumbing edges
- ii. Box gangs, fans, pot lights and in-wall speakers using matching Sound Proofing Drywall product using *Putty* to seal inside box edges
- iii. Install Sound Proofing Drywall with the "logo" facing forwards
- iv. Put a 1/8" bead of Seal along all Sound Proofing Drywall sheet edges. Wipe away excess as the Seal does not dry and will blister if painted or plastered on
- v. Cutting Notes
 - 1. ¹/₂" and 5/8" are possible score and snap, but for cleaner edges and quicker hang time, use jigsaw or circular saw
 - 2. Products with metal layer use saw with carbide tip blades
 - 3. Use RotoZip or Dremmel tools for all cutouts

7. Sales Approach

a. When a customers approaches you with their sound issue there is one common reality, and that is this:

"IF *price* is an issue, then sound isn't. IF sound is a serious enough issue, then price isn't."

- b. You DO NOT "sell" Sound Proofing Drywall. However you can ask your customer if they have "sound issues?" and then you can take it from there.
- c. You "educate" the customer on how it works and what it can do to alleviate their problem by asking questions
- d. The 5 basic questions to ask BEFORE discussing a possible solution:
 - i. <u>Question 1</u>: Is the problem "east-west" or "north-south" [determines if you are looking for a *wall* or a *ceiling/floor* assembly solution]
 - ii. <u>Question 2</u>: Is the noise from a "verbal" [airborne] or an "impact" [structural] source [determines what product to use]
 - iii. <u>Question 3</u>: What is the "frequency/pitch" of the noise
 - 1. High: speech, babies crying, kids yelling [easier to block]
 - 2. Low: low base, drums, pianos [tougher to block]
 - iv. <u>Question 4</u>: What is the "level/loudness" of the source and how much are you comfortable with [determines what assembly design to use]
 - v. <u>Question 5</u>: Is it a "new build" or "retrofit" application [Sound Proofing Drywall is the only product not requiring demolition of an existing wall as it can be screwed right on top of existing drywall, provided there is a stud, minimum a furring channel, in behind]

e. The 3 basic Sound Blocking comments

- i. <u>Statement 1</u>: A standard single wall with ¹/₂" drywall stops 32 dB's of sound
- ii. Statement 2: Human ear can only hear changes of 4-5 dB
- iii. <u>Statement 3</u>: For every additional 10 dB change in noise [up or down], your perceived sound blocking changes by an additional 50%. For example:
 - 1. Reduce sound by 3 dB = 19% sound blocking
 - 2. Reduce sound by 6 dB = 34% sound blocking
 - 3. Reduce sound by 10 dB = 50% sound blocking
 - 4. Reduce sound by 20 dB = 75% sound blocking
 - 5. Reduce sound by 30 dB = 87% sound blocking

8. Competitive "Solutions"

- a. Architects over designing to compensate for standard drywall failures
 - i. Over design with Mass Designing thicker walls with more layers of drywall
 Comparison: Using one sheet of Sound Proofing Drywall pre-

Comparison: Using one sheet of Sound Proofing Drywall preengineered drywall is equivalent to hanging 8 sheet of regular drywall

ii. Over design with Space - Designing a double or triple wall

- iii. <u>Important Info</u>: Adding one sheet of Sound Proofing Drywall transforms a single wall into a double wall without the added 8". It allows for higher performance using less material which is LEED [Leadership in Energy and Environmental Design] and Green [Ecologically] friendly.
- b. Resilient channel originally designed for leveling truss ceilings, not for walls
 - i. Sound deadening value: maximum 3-5 dB's
 - ii. Fails 90% of the time, mostly due to home owner needs
 - iii. **Comparison**: Sound Proofing Drywall is 300-400% more effective than RC and cannot be short circuited [doesn't fail]. RC must be used on <u>new wall</u> construction only; so not good for existing drywall applications
- c. Insulation batts made for mould, fire, thermal [not sound blocking]
 - i. Lessen "drum-effect" inside empty wall cavity
 - ii. Sound blocking value is 2-3 dB [QuietRock with insulation in wall is 49 dB and without insulation in wall is 47 dB]
 - iii. **Comparison**: It takes 14 batts of insulation to equal what 1 sheet of QuietRock does for sound blocking. Insulation must be put <u>inside</u> a wall only; so not good for existing drywall applications
- d. Space, materials & labour our *true* competition
 - i. Each of [a], [b] and [c] above result in additional costs when building out those assemblies
 - ii. **Comparison**: That is why Sound Proofing Drywall, although more expensive as a component, is cost competitive to all construction methods when looking to achieve a <u>+/- 50 dB</u> sound blocking assembly

9. Quietrock Value Proposition

- a. Using Sound Proofing Drywall Saves Space, Materials, Labour
- b. Jobs are completed faster so QuietRock saves Time
- c. Sound Proofing Drywall is the only product that can be used as a "retrofit" sound deadening application, meaning you don't have to demolish a wall to fix it

10. QuietRock Contact Information

Technical & Installation Techniques:

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