Configuraciones Básicas de Aislamiento Acústico

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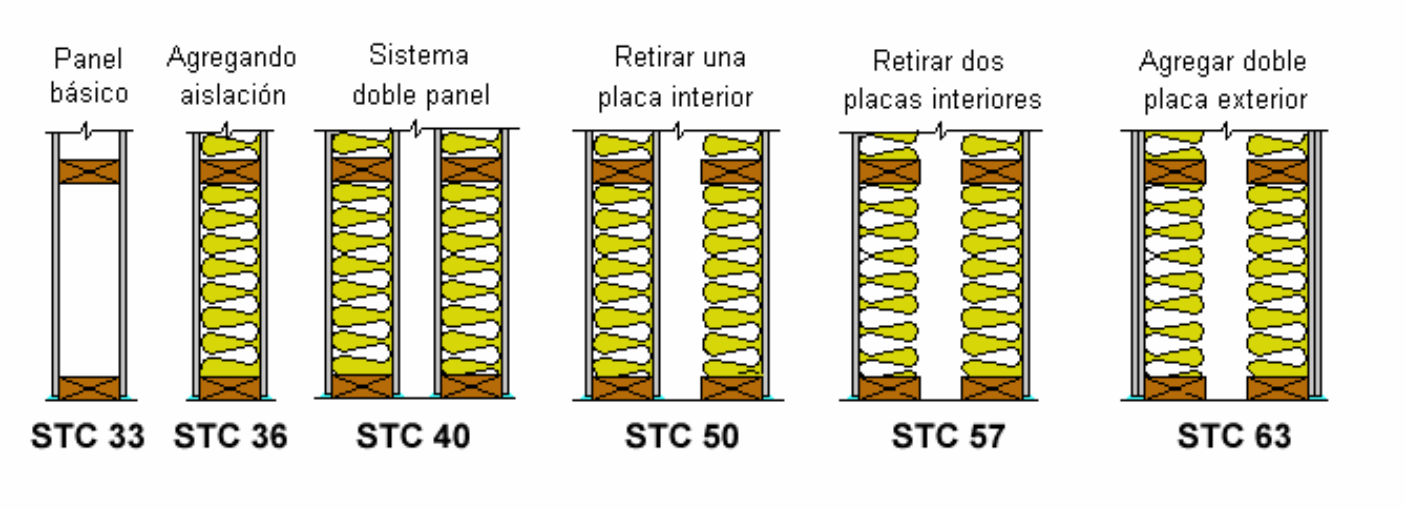
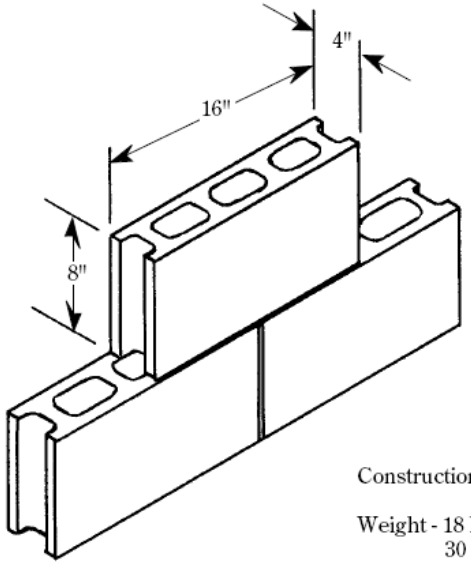
ACUambiente
ingeniería ltda

Panel doble

- Efecto del material absorbente acústico al interior de la cavidad.
  - Modos normales interiores.
  - Espesor del material lo más grande posible, sin conectar mecánicamente ambas placas simples.



Panel simple - Concreto



STC 48 dB

Construction - 4" concrete block

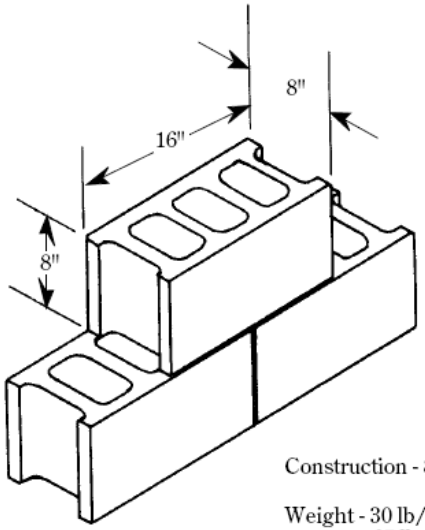
Weight - 18 lb/sq ft (plain)
30 lb/sq ft (plastered both sides)

Sound transmission class -
STC 40 dB plain
STC 48 dB plastered both sides

(Solite Corporation)

FIGURE 8-4

Four-inch concrete block construction.



STC 56 dB

Construction - 8" concrete block

Weight - 30 lb/sq ft (plain)
67 lb/sq ft (plastered both sides)

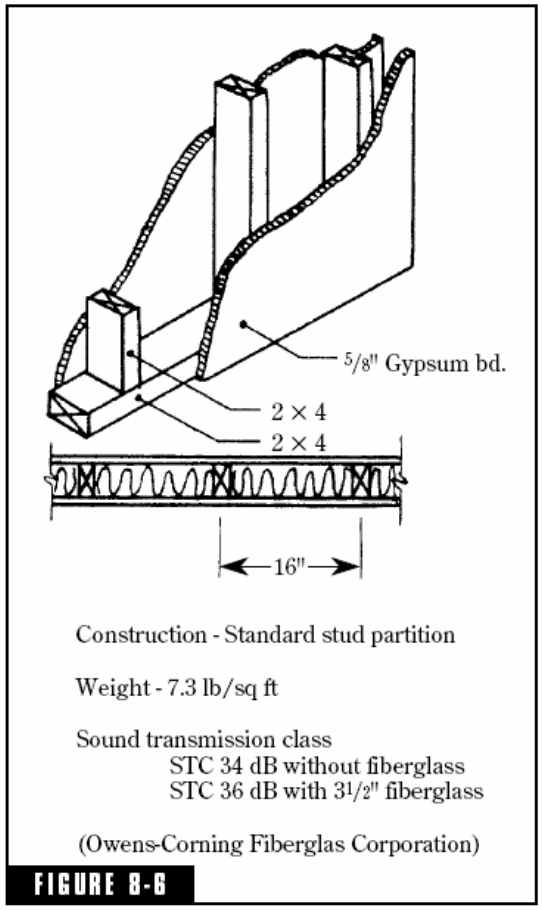
Sound transmission class -
STC 45 dB plain
STC 56 dB plastered both sides

(Solite Corporation, and LECA, Norway)

FIGURE 8-5

Eight-inch concrete block construction.

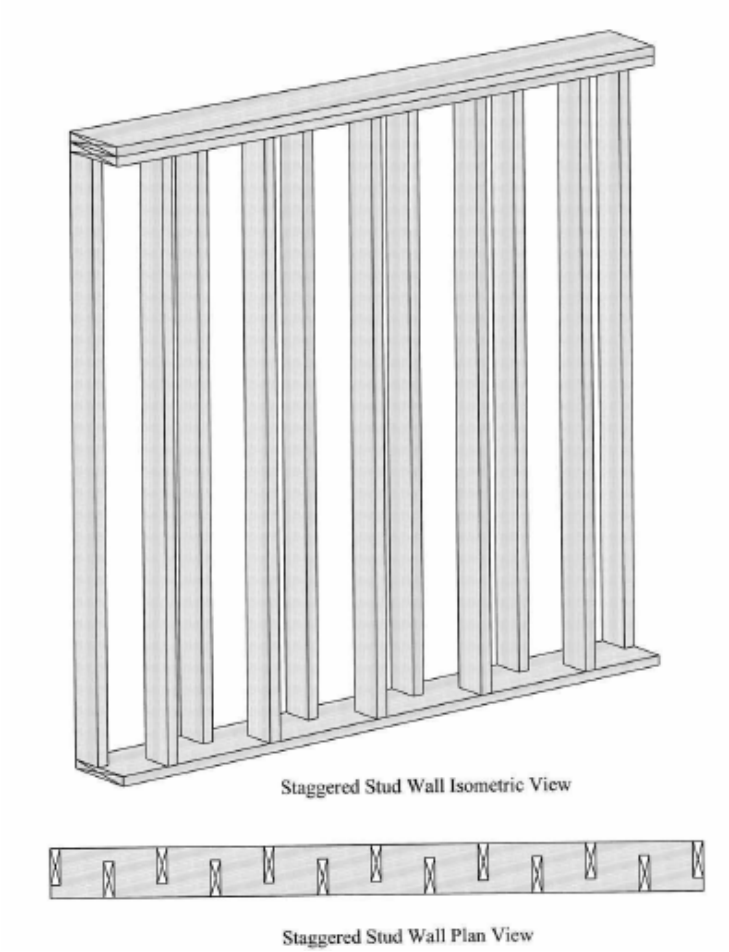
Tabiques



Standard stud partition.

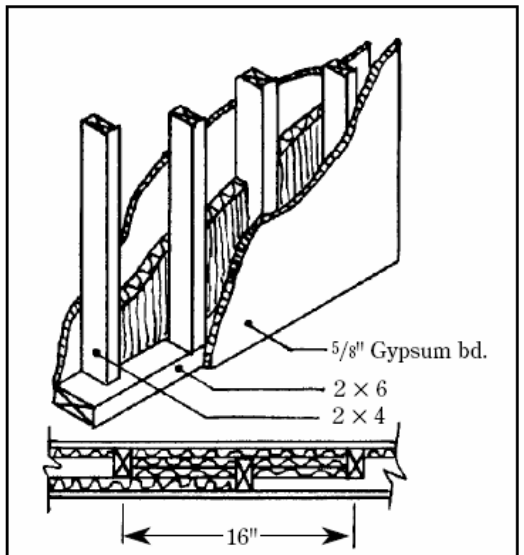
STC
36 dB

Staggered Stud



Staggered Stud Wall Isometric View

Staggered Stud Wall Plan View



Construction - Staggered stud partition

Weight - 7.2 lb/sq ft

Sound transmission class
STC 42 dB without fiberglass
STC 46 to 52 dB with fiberglass

(Owens-Corning Fiberglas Corporation)

FIGURE 8-7

Staggered stud partition.

STC 46 dB

Resilient metal channels

Figure 4.12
Resilient channels.

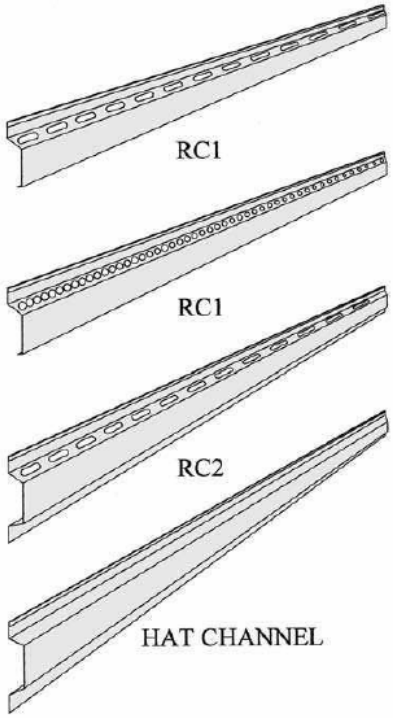
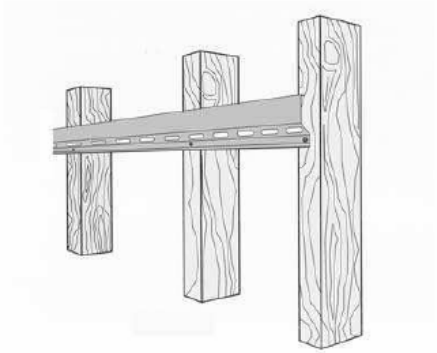
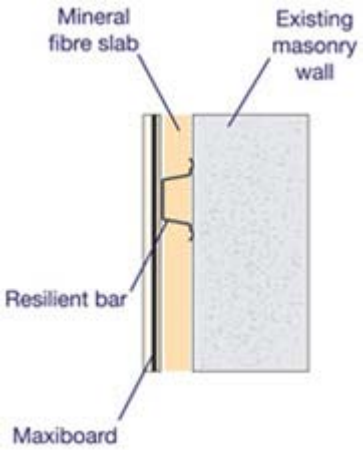


Figure 4.13
Resilient channel installation method.





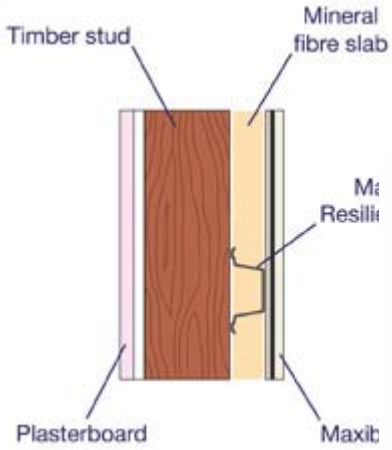
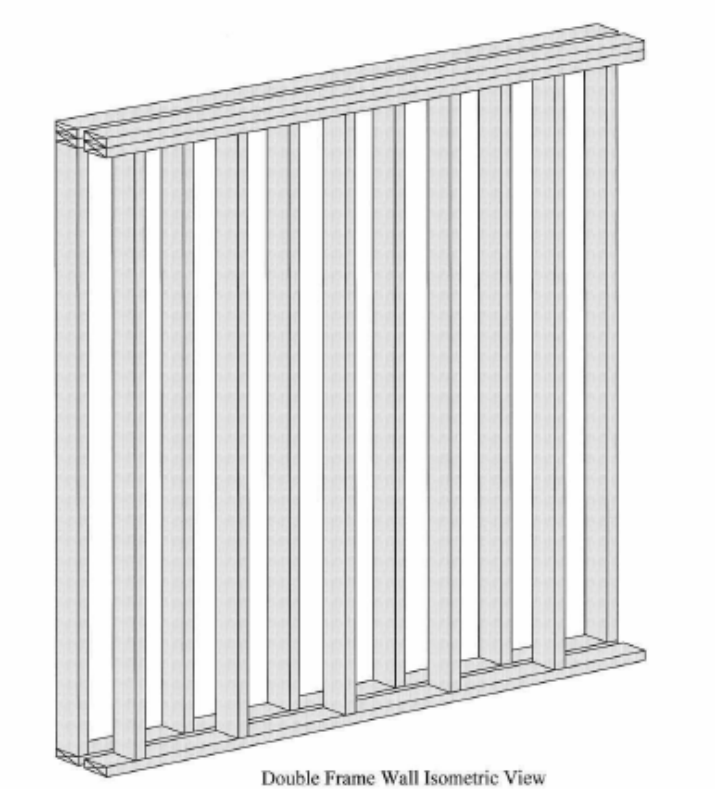
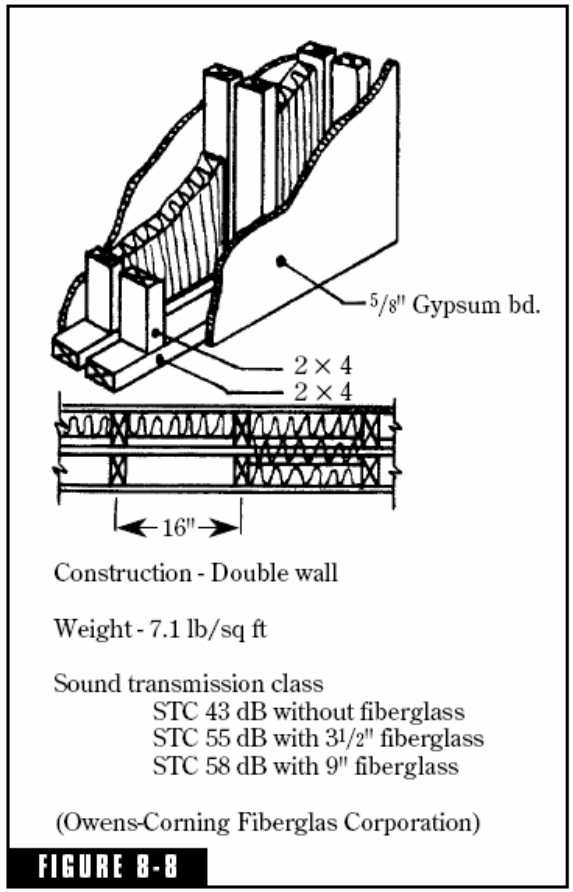


Figure 4.14
Resilient sound isolation clips (RISC-1).

Resilent metal channels

Double frame



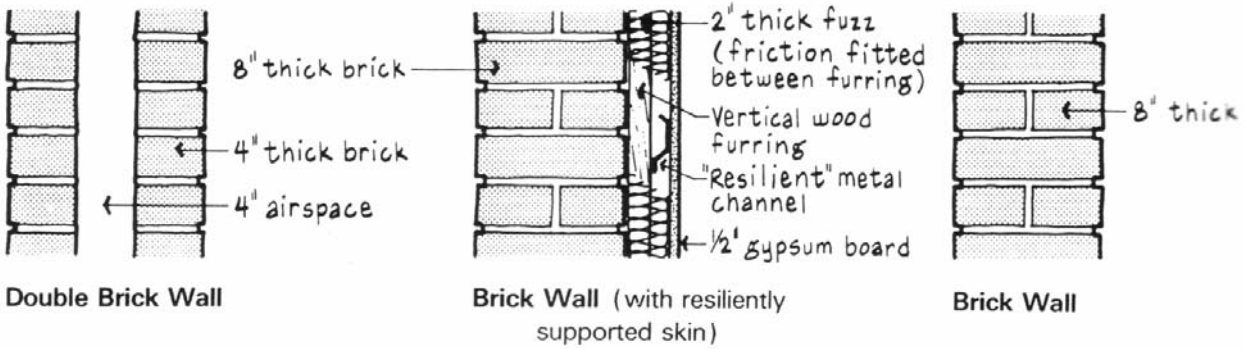


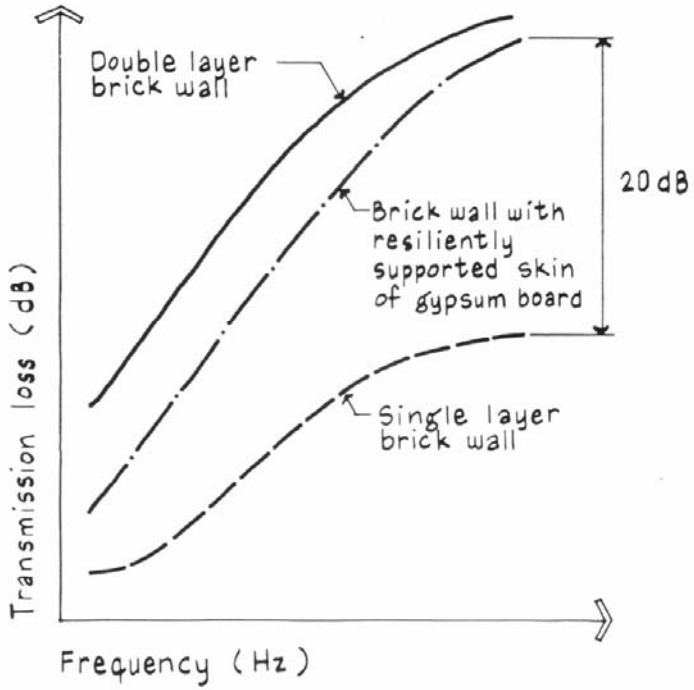
Double wall partition.

STC 55 dB

Paneles dobles

Mejorar aislación concreto





Puertas

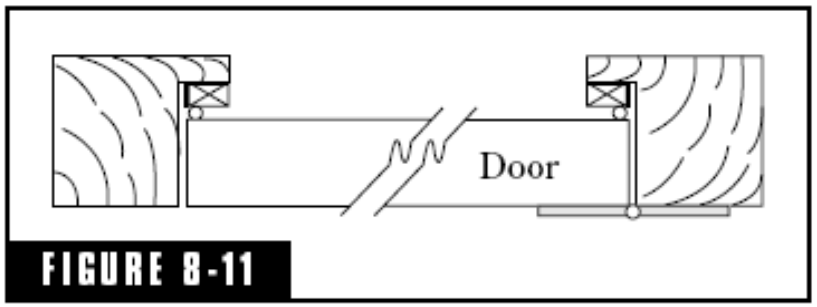


FIGURE 8-11

A door can be sealed by compressible rubber or plastic tubing held in place by a fabric wrapper.

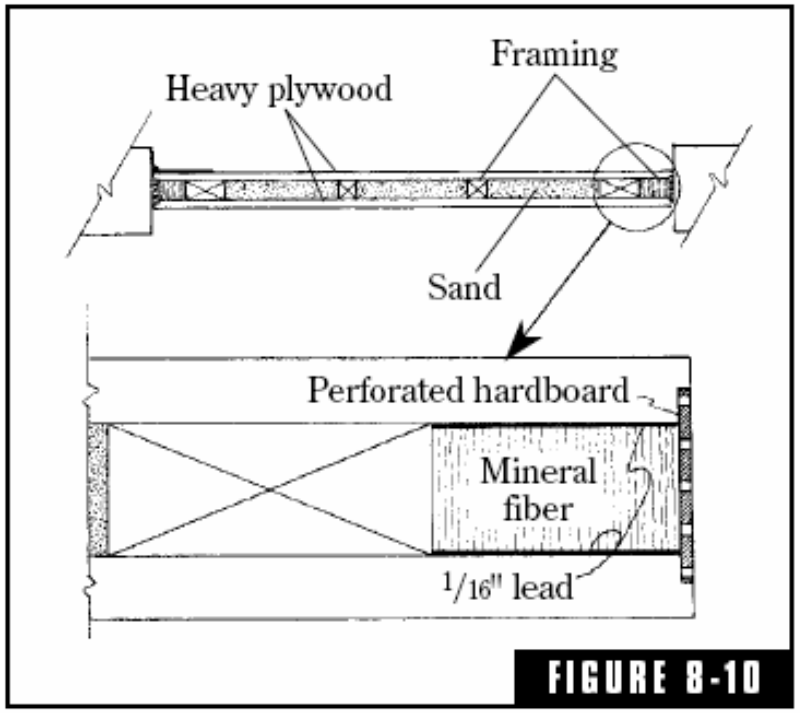
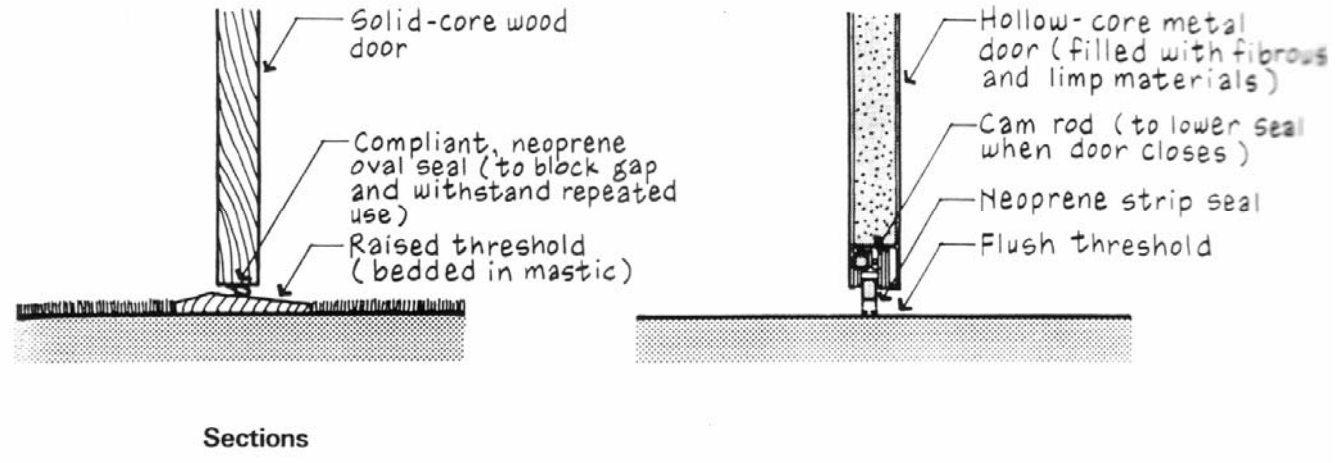


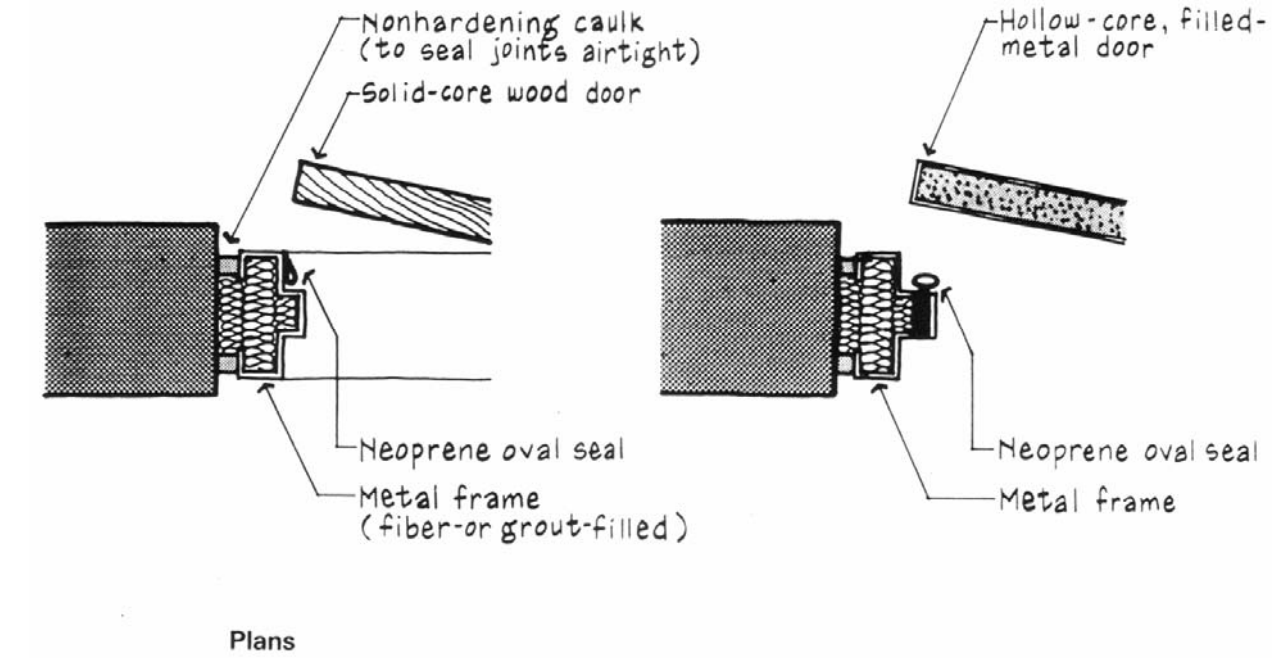
FIGURE 8-10

A reasonably effective and inexpensive "acoustic" door. Dry sand between the plywood faces adds to the mass and thus the transmission loss. Sound traveling between the door and jamb tends to be absorbed by the absorbent door edge.

Puertas



Sections



Plans

Puertas

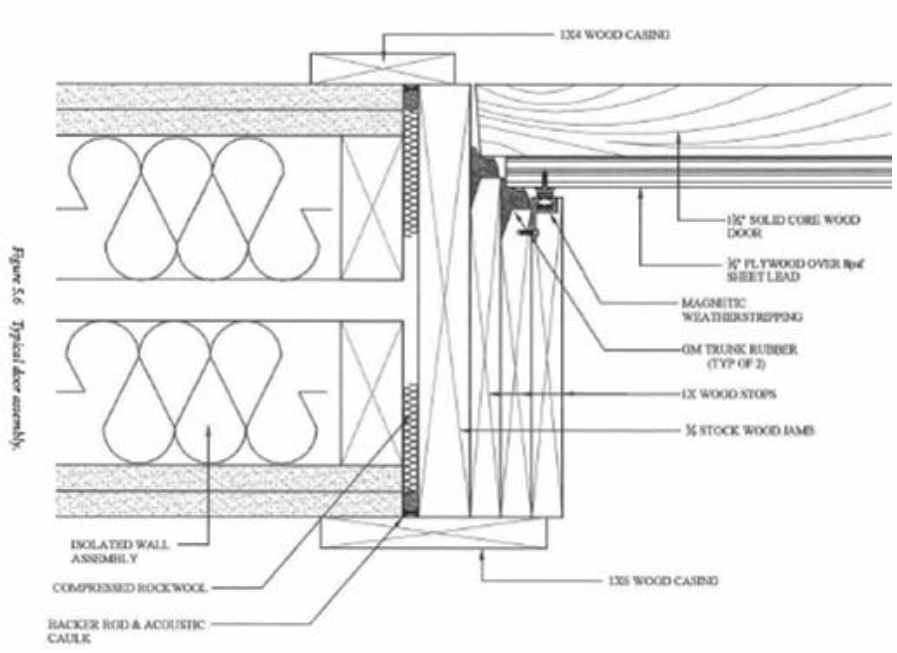


Figure 5.6 Typical door assembly.

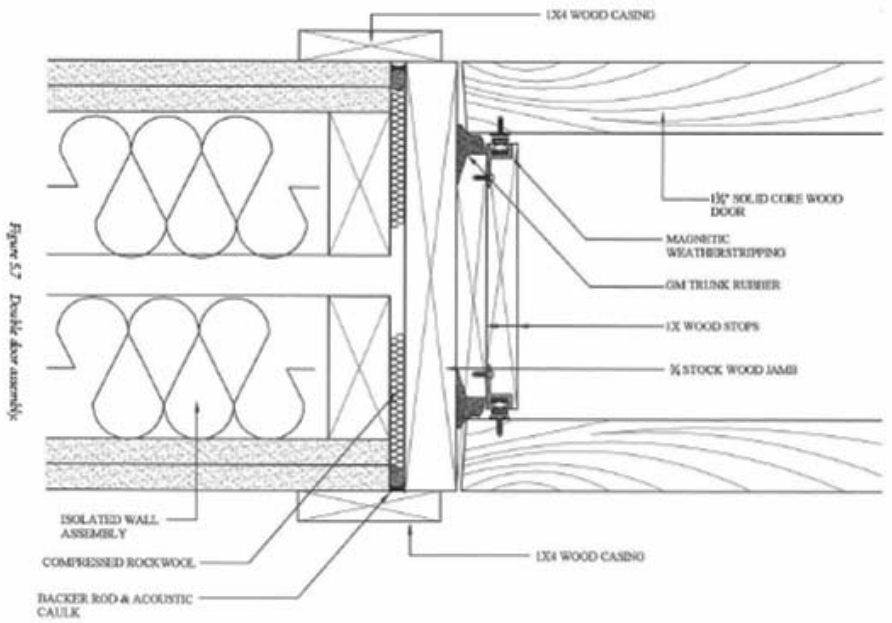
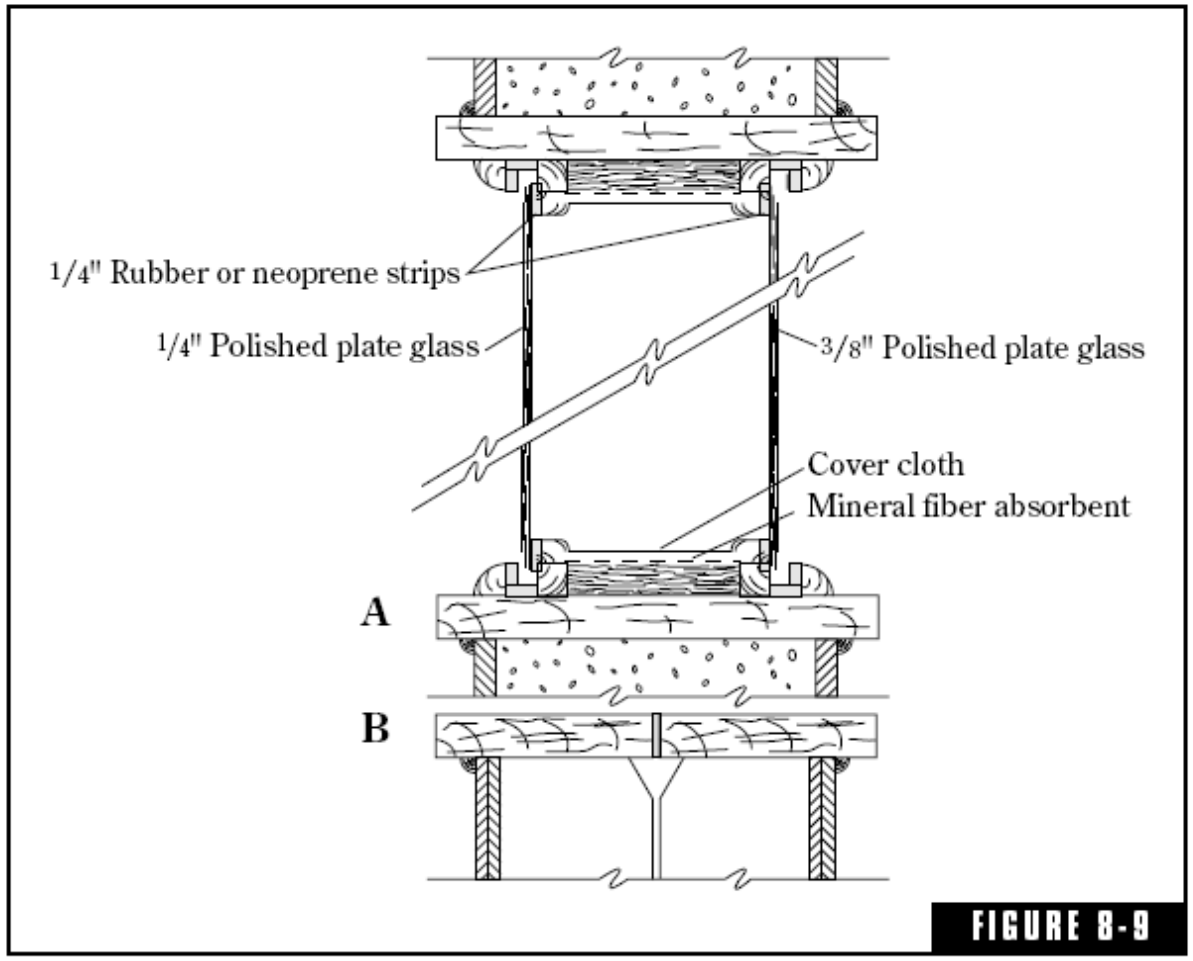


Figure 5.7 Double door assembly.

Ventanas



Four-inch concrete block construction.

Ventanas

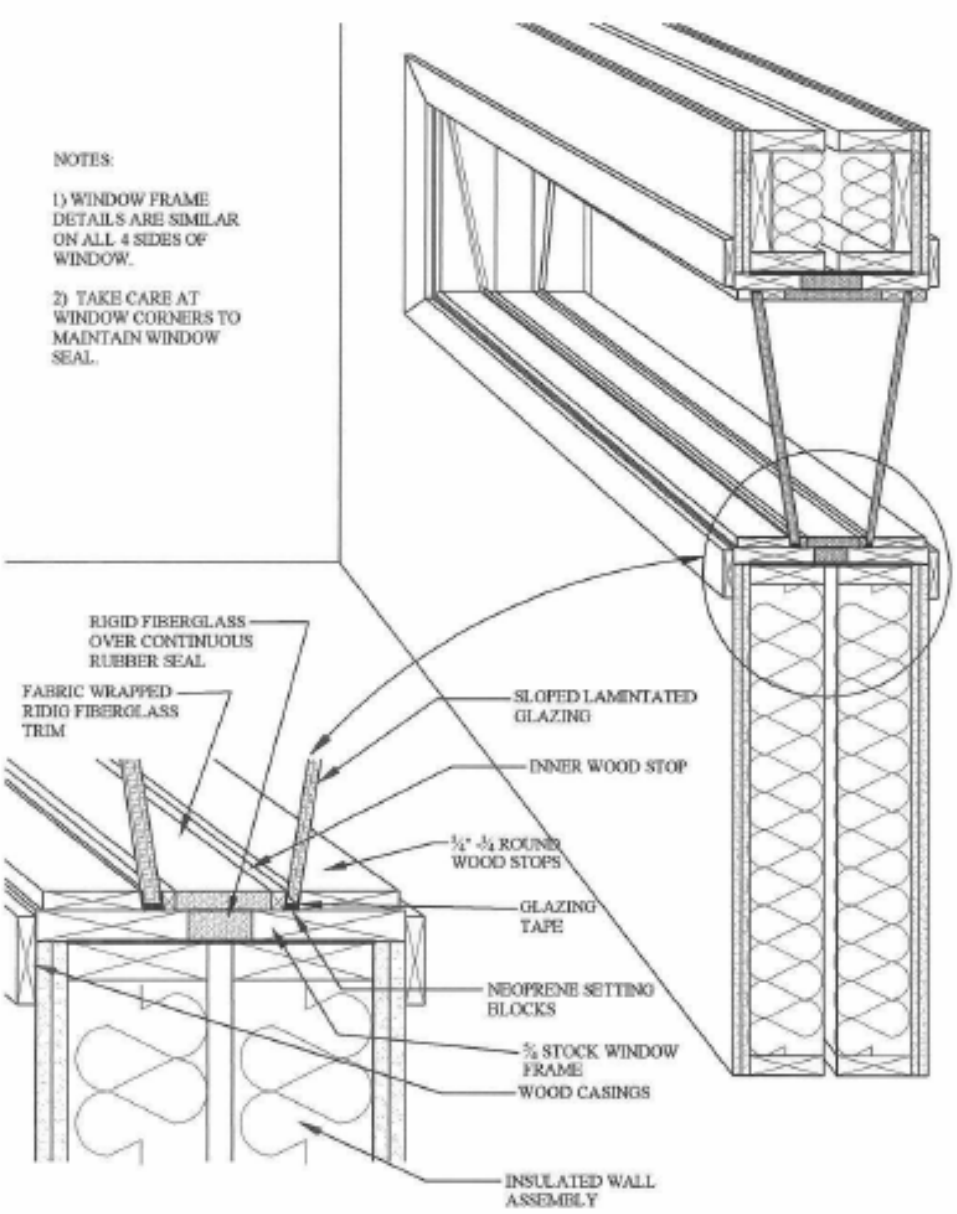


Figure 5.3 Isolated frame double glazed splayed window

Pisos flotantes

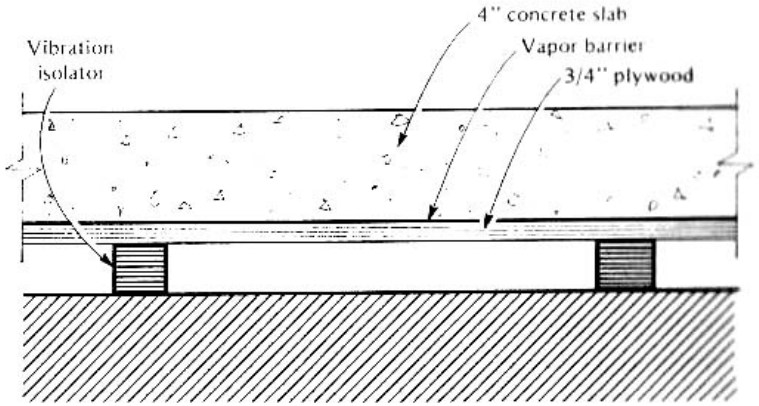
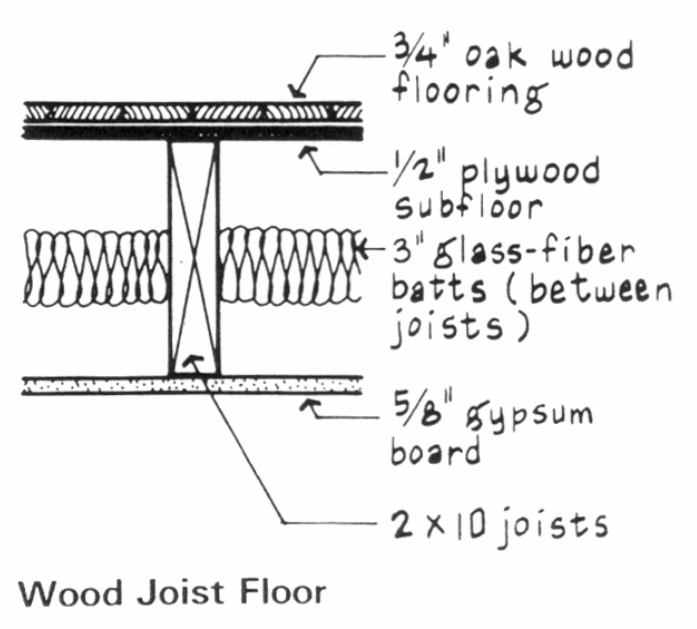
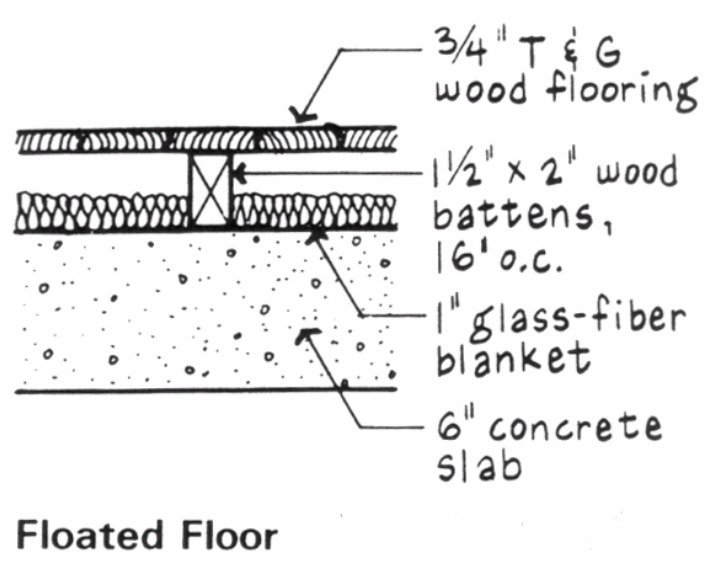
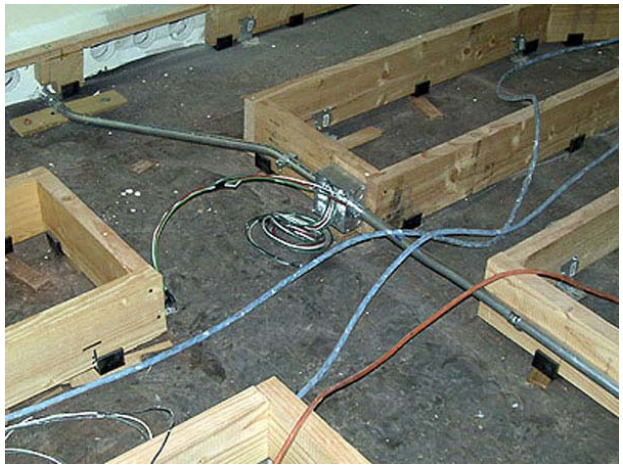


Figure 3-18 Floating concrete floors: The panel method vs. the jack-up method



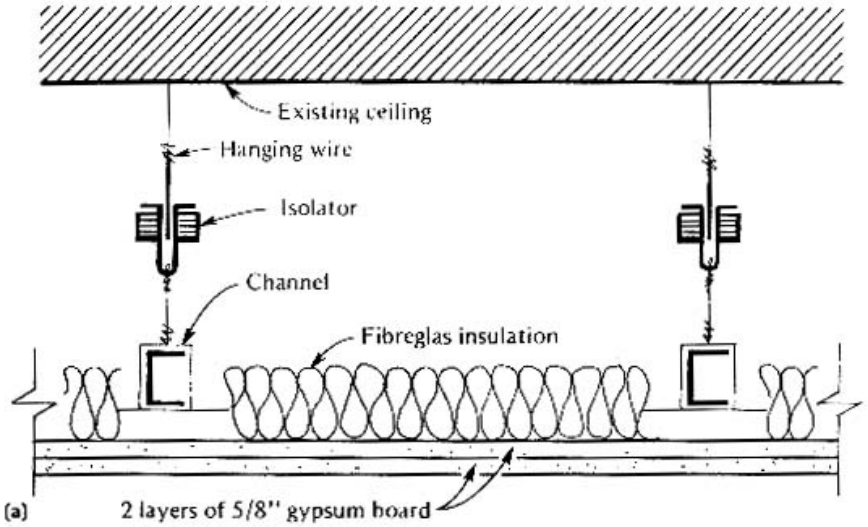


Pisos flotantes



Pisos flotantes

Cielos falsos



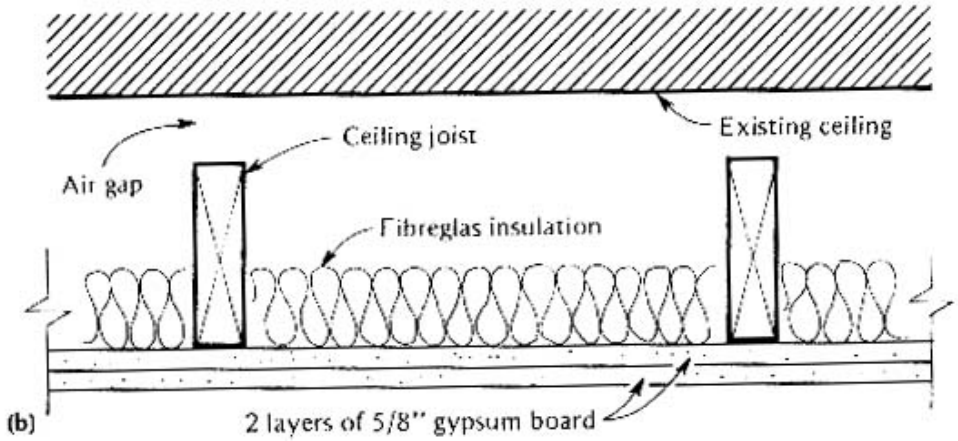


Figure 3-19 Floating ceilings suspended from a) above b) below

Cielos falsos

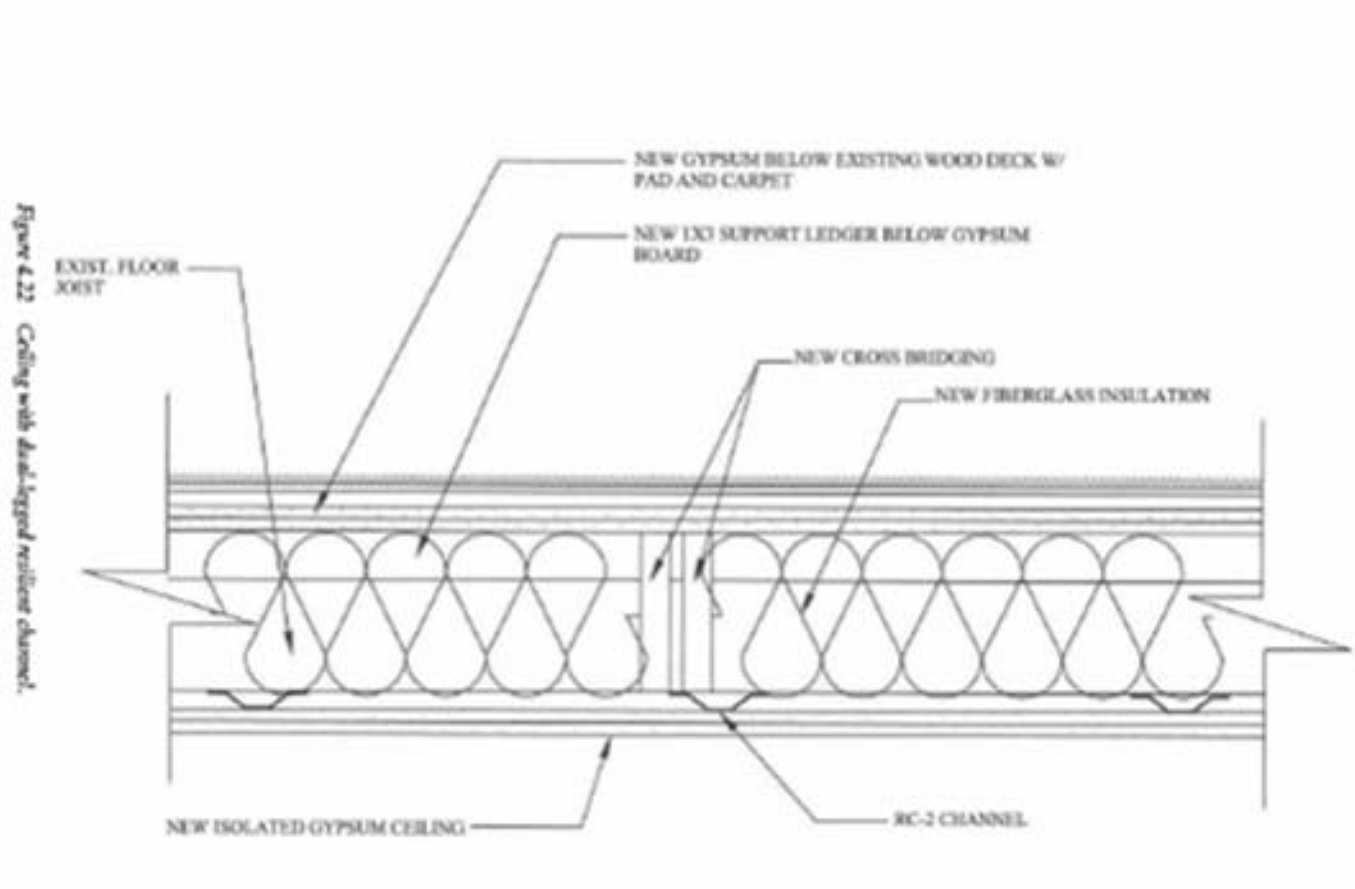


Figure 4.22 Ceiling with double-legged resilient channel.

Cielos falsos

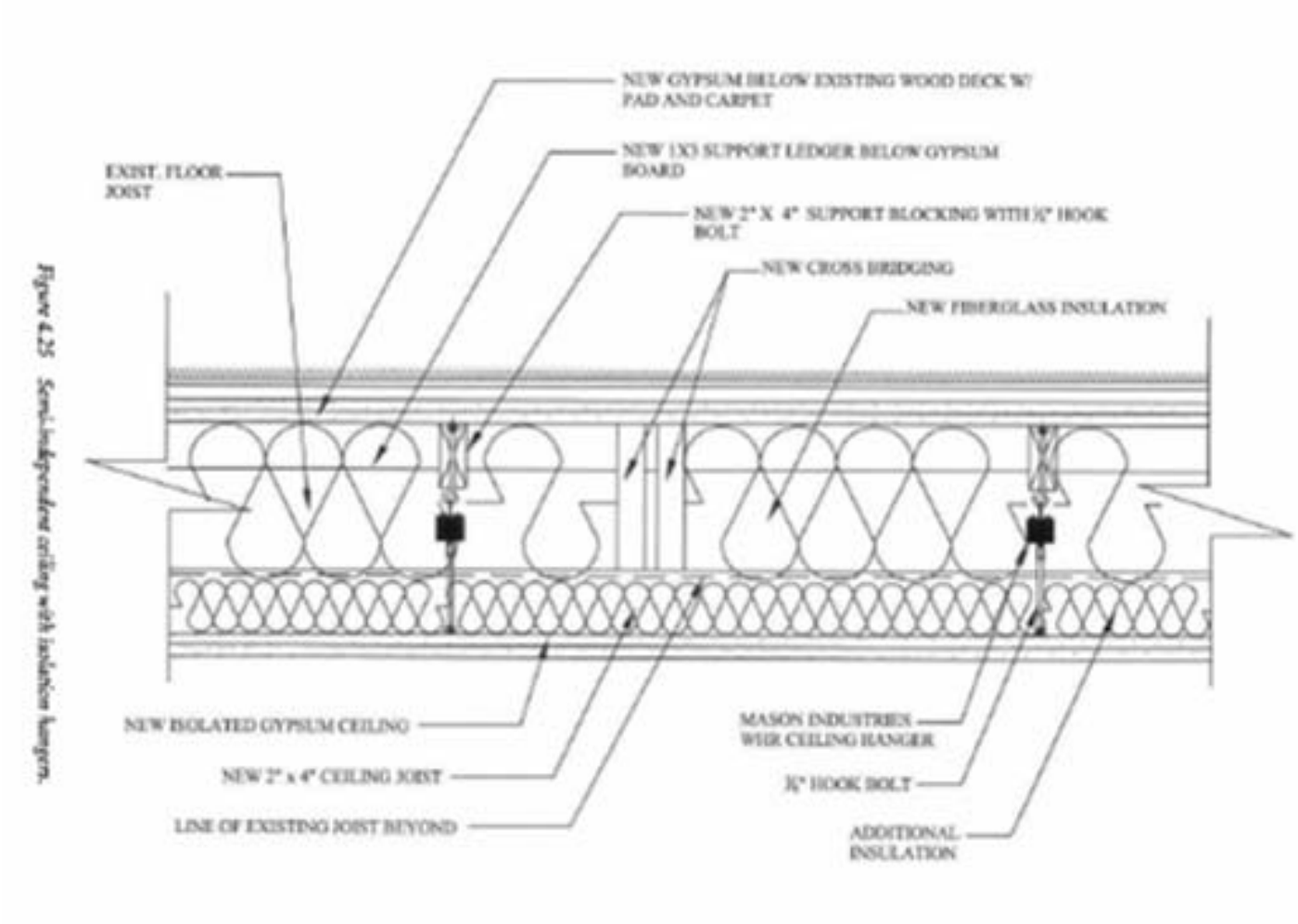
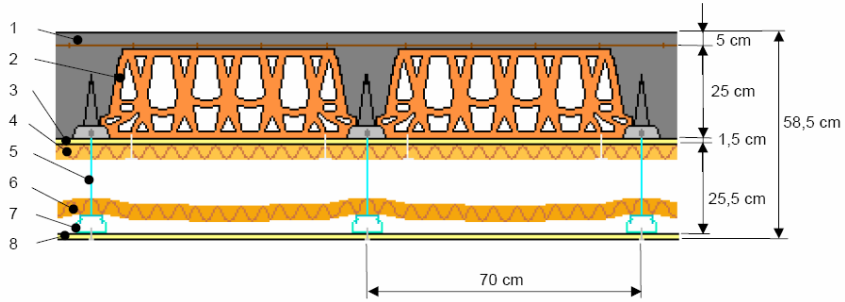


Figure 4.25 Semi-independent ceiling with isolation hangers.

Foto 4: Sellado de juntas

Foto 2: Montaje de varillas, perfilería y segunda capa de lana de roca

Foto 3: Montaje de placa de yeso laminado



1. Capa de compresión
2. Bovedilla cerámica
3. Enlucido de yeso
4. Panel rígido de lana de roca (4 cm; 160 kg/m^3)
5. Varilla M6
6. Panel semirígido de lana de roca (5 cm; 20 kg/m^3)
7. Perfilería metálica
8. Placa de yeso laminado (15 mm; 11 kg/m^2)