

DC1 - Safti-Seal Joint Protection – Acoustic Envelope



Hidden Joint Protection - CAC Rated Assemblies

Safti-Seal Joint Protection located inside of CAC rated “acoustic envelopes” used to conceal duct, cable tray, pipe, wire, etc...and reduce decibel loss of STC due to wall penetrations:

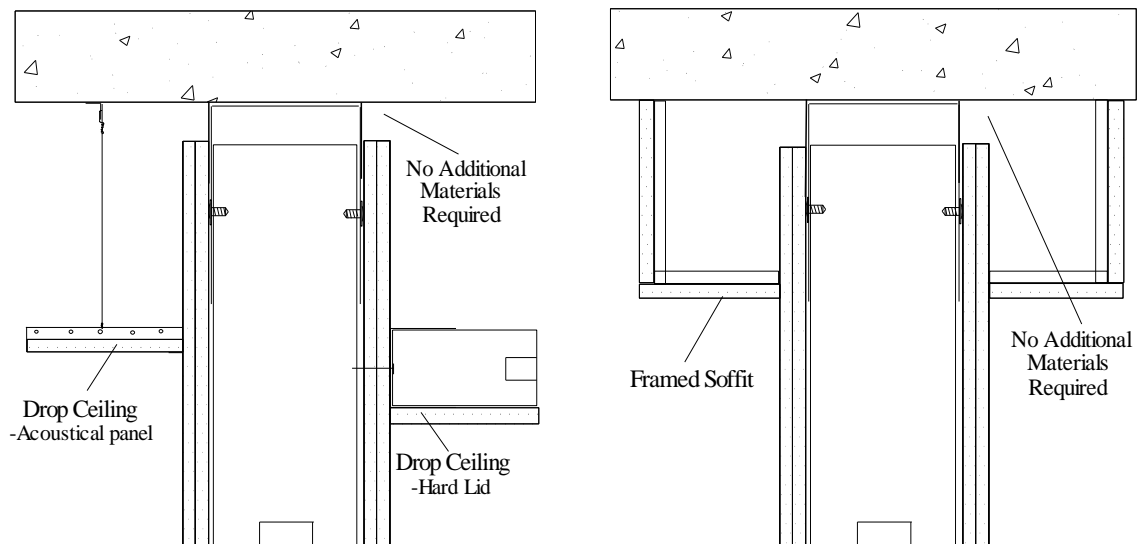
Provides:

- Safti-Strip Gasket seal against flanking over and through partitions
- Tested with additional 1/2" dynamic joint (seismic rated)
- Indefinite protection provides “seal” through lifetime of assembly
- Unrestricted smaller installed joints
- Early unobstructed accurate inspections

Eliminates Mastic:

- Drying out/cracking,
- Loss of adhesion, sagging, and dislodging,
- Field under, mis, or ‘non’(obstructed) application
- Degradation of sound/smoke seal(due to deflection or aging of materials)

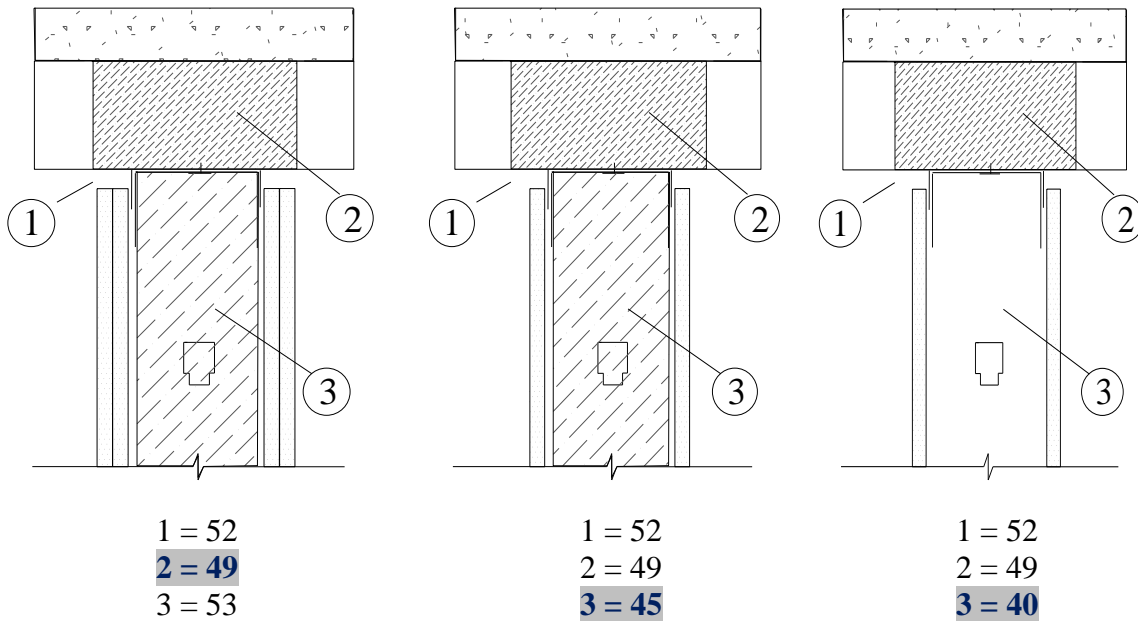
Examples of "hidden joint" construction:



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Fluted Deck - Flute Fill / CAC Rated Ceiling Considerations

1. – Safti-Frame composite 20ga metal/Safti-Strip "top track" profile
 - 1/2" open gap between wall sheathing and overhead
 - Wall sheathing overlapping and in contact with Safti-Strip material
2. - Preformed Deck Plug
 - Min. 6 pcf mineral wool density
 - Compressed a min 33% and completely filling fluted areas
3. - Wall Assembly
 - 25ga stud - 3 5/8" wide
 - Batt R-11 fiberglass insulation (3 1/2" thickness where installed)
 - 5/8" thick type wallboard



STC Ratings - lab measured section of assembly (isolated independently)

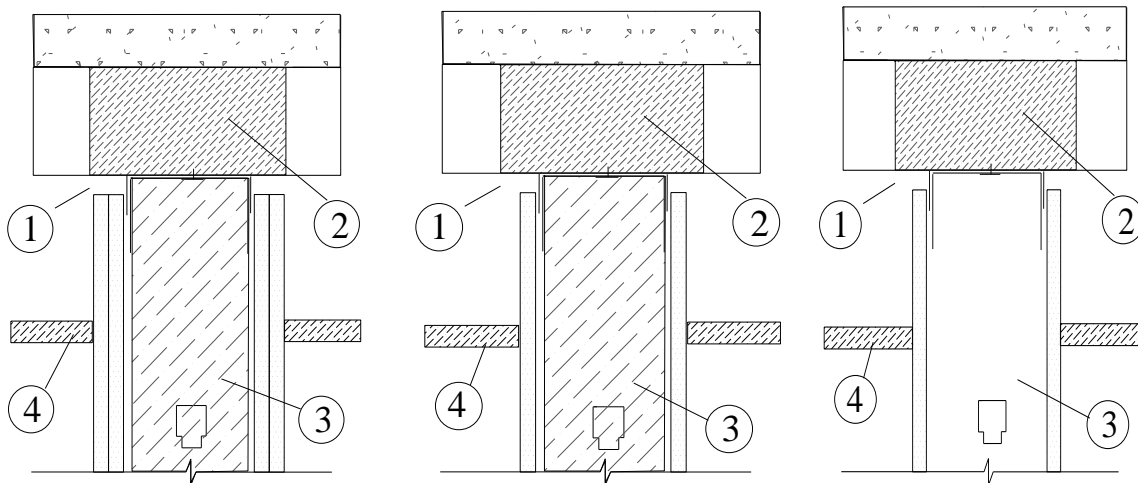
-Exposed condition with **no** additional acoustical treatment (i.e. acoustical ceiling batt insulation, tile "grid system", gypsum "hard lid", castle cut gypsum, or joint cover materials)

-Assembly STC limited to lowest "performing" materials or section of assembly design

- Replacing 25ga stud material with 20ga studs further reduces illustrated "single wall" assemblies (Item #3) rating by additional 3 to 5 points.

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1. - Safti-Frame composite 20ga metal/Safti-Strip "top track" profile
 - 1/2" open gap between wall sheathing and overhead
 - Wall sheathing overlapping and in contact with Safti-Strip material
2. - Preformed Deck Plug
 - Min. 6 pcf mineral wool density
 - Compressed a min 33% and completely filling fluted areas
3. - Wall Assembly
 - 25ga stud - 3 5/8" wide
 - Batt R-11 fiberglass insulation (3 1/2" thickness where installed)
 - 5/8" thick type wallboard
4. - Ceiling assembly
 - Both sides
 - Min. CAC rating of 20**



1 = 72 (52 + 20)
 2 = 69 (49 + 20)
3 = 53
 4 = 20 (CAC)

1 = 65 (45 + 20)
 2 = 65 (45 + 20)
3 = 45
 4 = 20 (CAC)

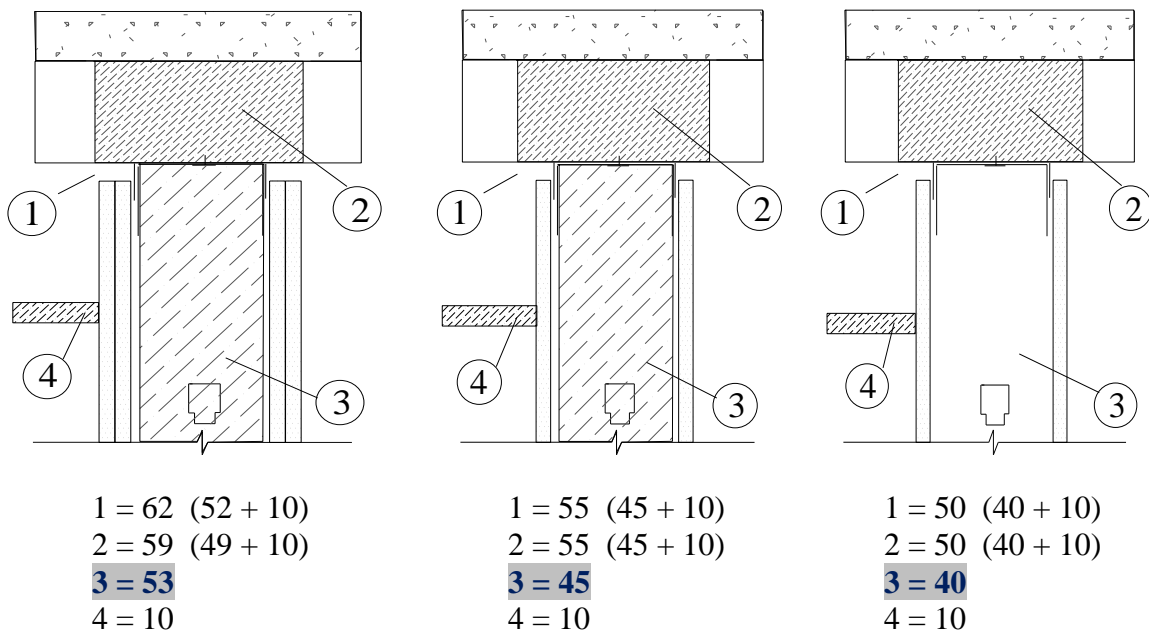
1 = 60 (40 + 20)
 2 = 60 (40 + 20)
3 = 40
 4 = 20 (CAC)

STC Ratings - lab measured section of assembly (isolated independently)

- Assembly STC is limited to lowest "performing" materials or section of assembly design
- Installed acoustical or "hard lid" ceiling CAC rating of 20 decreases sound transmission at head of wall above improving the STC rating. (i.e. joint materials + ceiling materials)
- Replacing 25ga stud material with 20ga studs further reduces illustrated "single wall" assemblies (Item #3) rating by additional 3 to 5 points.

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1. - Safti-Frame composite 20ga metal/Safti-Strip "top track" profile
 - 1/2" open gap between wall sheathing and overhead
 - Wall sheathing overlapping and in contact with Safti-Strip material
2. - Preformed Deck Plug
 - Min. 6 pcf mineral wool density
 - Compressed a min 33% and completely filling fluted areas
3. - Wall Assembly
 - 25ga stud - 3 5/8" wide
 - Batt R-11 fiberglass insulation (3 1/2" thickness where installed)
 - 5/8" thick type wallboard
4. - Ceiling assembly
 - Ceiling assembly one side only
 - Min CAC rating of 20 cut in half (i.e. 20 rating becomes only a 10)



STC Ratings - lab measured section of assembly (isolated independently)

-Assembly STC is limited to lowest "performing" material or section of assembly design

- Installed acoustical or "hard lid" ceiling CAC rating of 20 one side of assembly decreases sound transmission by half of rating (10 dbl loss) at head of wall above improving the STC rating. (i.e. joint materials + ceiling materials)

- Replacing 25ga stud material with 20ga studs further reduces illustrated "single wall" assemblies (Item #3) rating by additional 3 to 5 points.