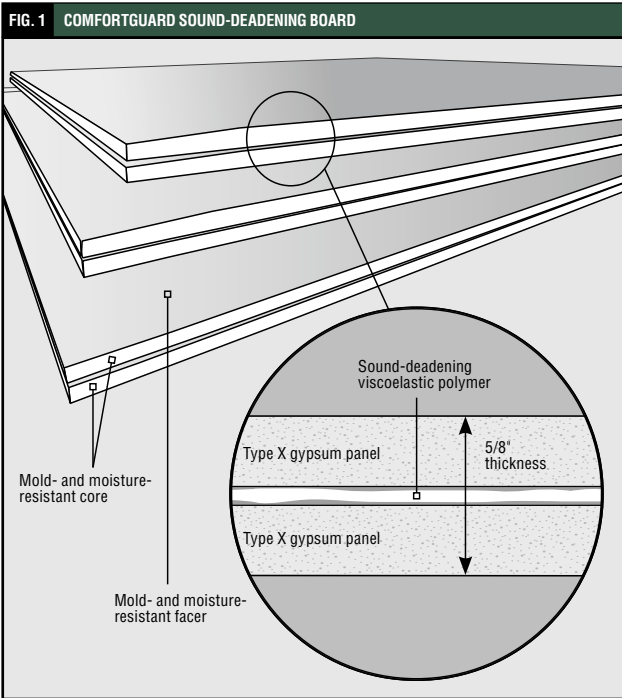


Technical Summary

ComfortGuard[®] sound-deadening gypsum board features two separate specially engineered 5/8"-thick gypsum panels, each manufactured with a mold- and moisture-resistant core and facers, laminated together using a viscoelastic polymer. (FIG. 1) With this pliable adhesive between the two rigid panels, ComfortGuard is a very effective product for interrupting the transmission of noise vibrations through wall and partition assemblies. This makes ComfortGuard the ideal solution to help deliver new, increasingly common code required STC values.



SOUND RATINGS and SOUND TRANSMISSION:

Replacing standard 5/8" gypsum board in a typical wood stud assembly, ComfortGuard improved test values for sound transmission by 45% (from an STC of 35 to an STC of 51). It can help deliver STC values over 50 easily and greater than 60 cost efficiently. For optimum sound performance, see the ComfortGuard recommendations on our website.

FIRE RESISTANCE of Type X PANELS:

ComfortGuard is a proprietary 5/8" Type X sound-deadening gypsum board that has passed a full-scale fire test in accordance with ASTM E119 and therefore may provide a fire-resistance rating of one or more hours, depending upon the assembly in which it is applied. Contact Temple-Inland for assembly details.

Note: Because ASTM procedures require that fire tests be conducted on complete building assemblies/systems and not just on the gypsum board itself, the ability of any particular gypsum board to pass a specific ASTM-referenced fire test may well depend on factors other than the fire-resistance of the gypsum board being tested. These factors include the other components used to construct the building system being tested, the manner in which the system is constructed and the inherent variability of laboratory fire tests.

SUSTAINABLE DESIGN (LEED and NAHB-GBS)

ComfortGuard sound deadening gypsum board is certified in accordance with ISO 14021 standards to contain a minimum of 93 percent recycled content on a dry-weight basis. The recycled content of ComfortGuard is third-party certified by Scientific Certification Systems (SCS). Please consult your Temple-Inland representative or visit our [website](#) to find the specific recycled content of material produced at a particular facility.

LEED

The use of ComfortGuard sound deadening gypsum board can contribute greatly toward LEED credits in these two LEED certification categories:

MR credit 4

Recycled Content

awards 1 or 2 points for using products with recycled content that constitute at least 10% or 20%, based on cost, of the total value of project materials.

MR credit 5

Local/Regional Materials

awards 1 or 2 points for using materials that are extracted and manufactured within 500 miles that constitute at least 10% or 20%, based on cost, of the total value of project materials.

N.A.H.B. Green Building Standards

The use of ComfortGuard sound deadening gypsum board can also contribute greatly toward the N.A.H.B. Green Building Standard credits in the following certification category:

NAHB 604.1 (2)

Pre-consumer Recycled Content specifies the use of recycled content products in major areas such as walls, floors, insulation and roofing.

PHYSICAL PROPERTIES	
	5/8"
Widths	48" and 54"
Lengths	8', 9', 10', 12'
Edge	Tapered
Weight	2.6 lbs./ sq. ft.
Water Absorption ¹	5%
Flame Spread ²	15
Smoke Developed ²	0
Humidified Deflection ¹	5 (1/8 of inch)
Flexural Strength ¹ (md/cd)	46/147

¹ASTM C473; ²ASTM E84

NOTE: see our [website](#) for important information regarding the fire-resistant properties of 5/8" Type X products.



MOLD and MOISTURE RESISTANCE:

ComfortGuard incorporates the TemShield mold protection system in the core and facers to resist moisture and mold. It scored a 10, the highest score possible, when tested in accordance with ASTM D3273, the industry standard test for mold resistance. Its water absorption of less than 10 percent was tested in accordance with ASTM C473.

Note: The ASTM D3273 lab test may not be applicable to the actual performance of building materials. No material may be labeled mold proof, and resistance to mold growth depends on many factors. Prolonged exposure to moisture may cause mold and mildew to grow on any surface. Therefore, in order to maximize the mold and mildew resistance of a material, it is essential that good design, handling and construction practices be implemented. This involves avoiding water exposure during all phases of storage, handling, shipping, installation and after installation is complete. See GA 238 for more information.

INSTALLATION RECOMMENDATIONS:

ComfortGuard is designed for simple installation. If deeply scored, it can be snapped and hung. Application and finishing should be in accordance with ASTM C840 and/or GA-216 and/or GA-214.

Framing:

The minimum facing of wood framing members shall be 1/2". The minimum facing of metal framing members shall be 1/4". Framing members shall not vary more than 1/8" from the plane of the faces of adjacent framing.

Fasteners:

Use either nails or screws to attach ComfortGuard sound-deadening gypsum board to framing members. Drive fasteners just

below the surface, taking care not to break through the facer. All fasteners must penetrate into the framing member. Locate fasteners a minimum of 3/8" from the edges and ends of the panel. (FIG. 2 & FIG. 3) If ComfortGuard is added as an additional layer, fastener length should be increased appropriately. Fasten ComfortGuard sound-deadening gypsum board to framing members in accordance with ASTM C840, GA-216 and appropriate design and code requirements.

Joints:

For optimum sound performance, all joints must be finished. Joints should be finished as specified by the design engineer, or as explained in ASTM C840 or GA-216. For optimum sound reduction see recommendations on page 3. (FIG. 4)

Fire-Rated Assemblies:

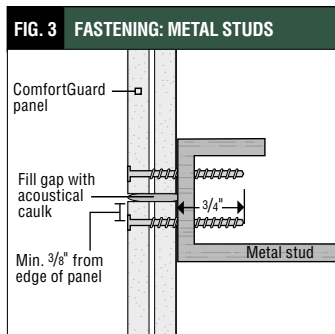
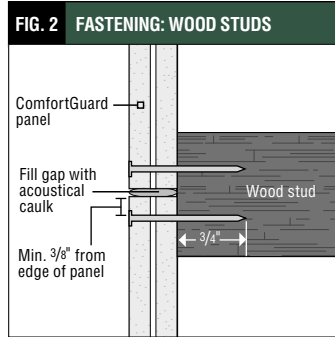
ComfortGuard sound-deadening gypsum board should be installed according to the appropriate fire-rated system/assembly specification and in accordance with the appropriate standards: ASTM C840, GA-216.

FASTENING AND FINISHING REQUIREMENTS:

Finish ComfortGuard in the same manner as traditional gypsum board. For more information, consult ASTM C840, GA-214, GA-216. (FIG. 3)

APPLICABLE STANDARDS:

ASTM C1396, ASTM C473, ASTM D3273, ASTM C840, GA-214, GA-216, ASTM E84, ASTM E90, Federal Specification SS-L-30D, Type III (Grade R).



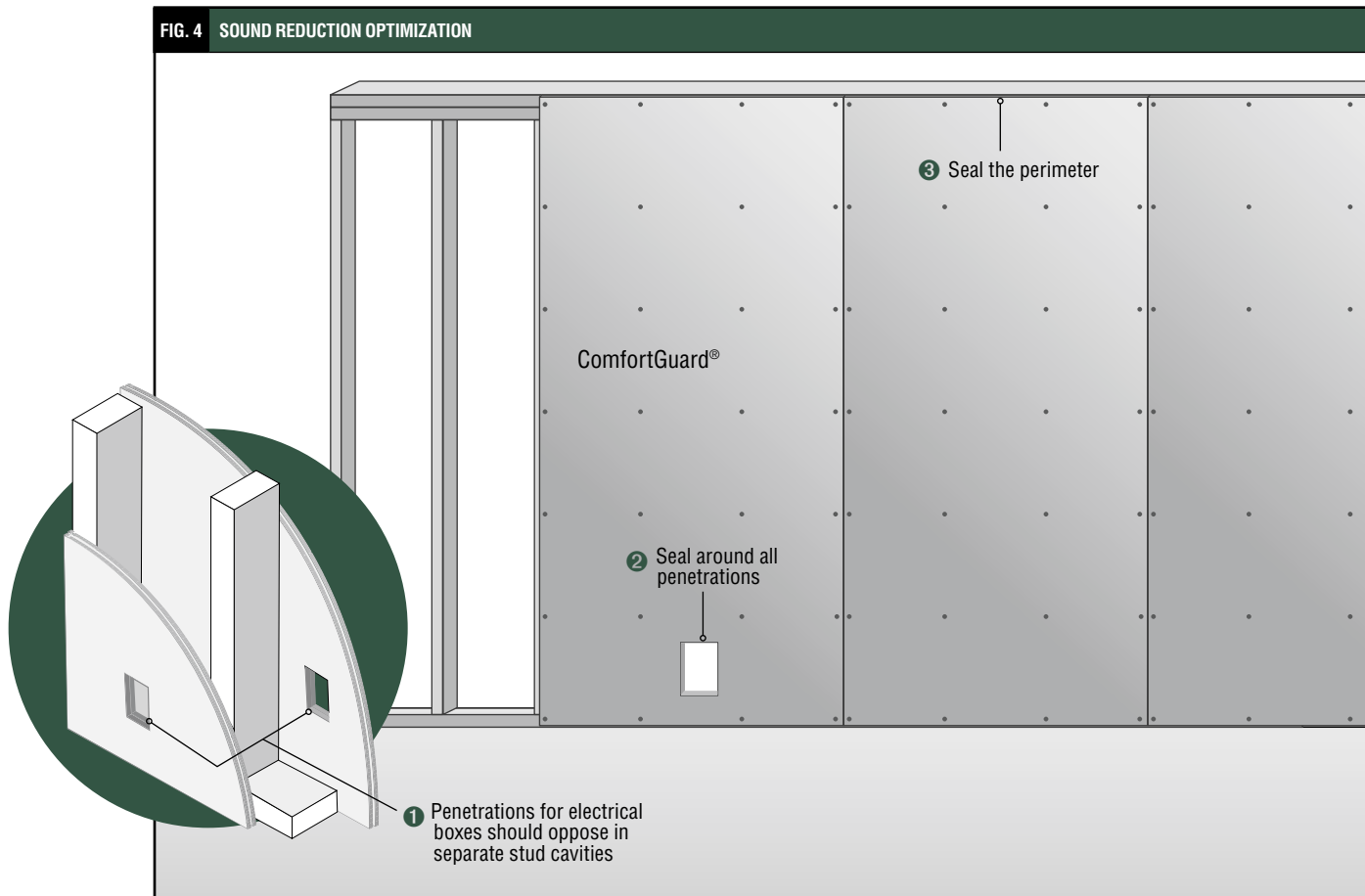
LIMITATIONS:

- Should not be used as a nailing base.
 - ComfortGuard sound-deadening gypsum board should not be immersed in water or subjected to cascading water conditions.
 - Should not be laminated to masonry surfaces.
 - Should avoid any condition that creates moisture and condensation to form on ComfortGuard sound-deadening gypsum board during the construction process.
 - Not intended for use as a tile backer.
 - ComfortGuard sound-deadening gypsum board must be stored off the ground using sufficient risers to ensure support for the entire length of the gypsum board to prevent sagging.
 - ComfortGuard gypsum board must be stored under cover and kept dry.
- See MSDS for more information found on our [website here](#).

ARCHITECTURAL SPECIFICATIONS:

CSI 3-part specification for ComfortGuard sound-deadening gypsum board and all Temple-Inland gypsum board products may be found in a variety of downloadable formats [here](#) and www.reedfirstsource.com and www.4specs.com.

FIG. 4 SOUND REDUCTION OPTIMIZATION

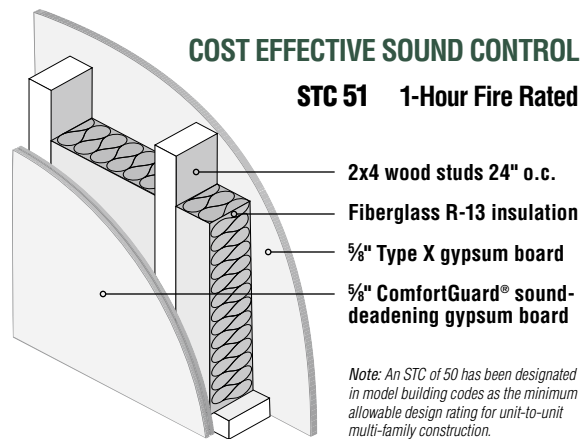


METHODS FOR OPTIMUM SOUND PERFORMANCE

- Stagger joints from one side of the wall to the other.
- Minimize wall penetrations.
- Ensure penetrations for electrical boxes are not opposing in the same stud cavity. (See 1)
- Use acoustical sealant or putty pad and seal around all penetrations. (See 2)
- Seal the perimeter of the wall with acoustical sealant or putty pad. (See 3)
- Increasing stud spacing and reducing fasteners both have positive effects in reducing sound transmission, but both affect structural and fire performance. Please consult with the design professional to ensure adequate design performance.
- Use of resilient channel with ComfortGuard sound-deadening board can enhance sound performance if installed correctly.

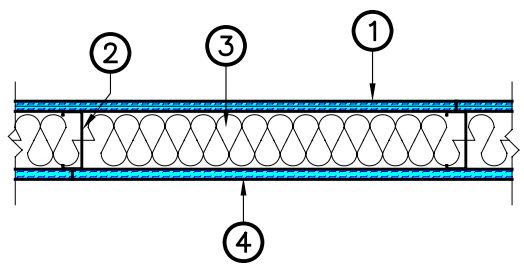
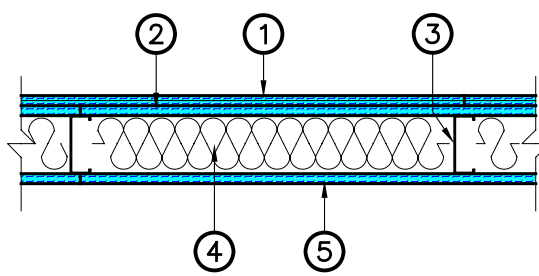
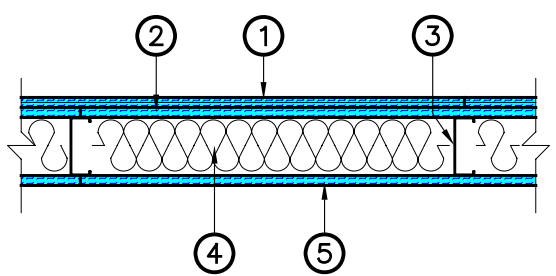
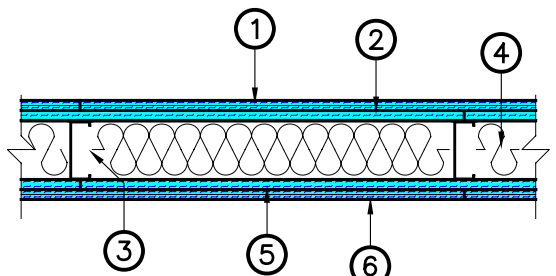
COST EFFECTIVE SOUND CONTROL

STC 51 1-Hour Fire Rated



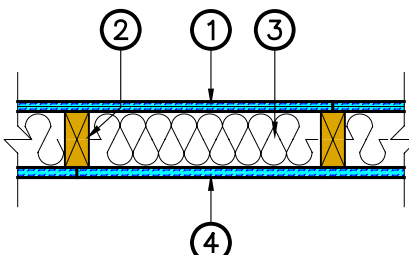
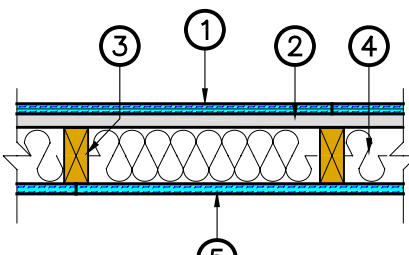
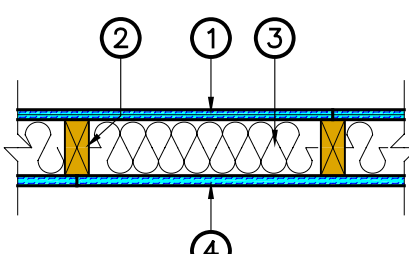
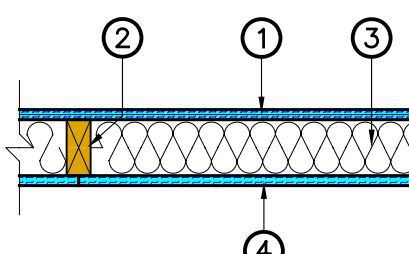
Note: An STC of 50 has been designated in model building codes as the minimum allowable design rating for unit-to-unit multi-family construction.

ACOUSTIC WALL ASSEMBLIES

<p>STC 56 Test #OL08-0911 Assembly Thickness 4 7/8"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (1/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1" screws @ 8" O.C. for vertical joints and @ 12" O.C. for floor and ceiling runners and intermediate studs. 3 3/8" 25-gauge steel studs @ 24" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (1/8") Type X gypsum board; 1" screws @ 12" O.C. <p>GA file number WP 1081 U.L. U465</p>	<p>STC 58 Test #OL08-0912 Assembly Thickness 5 1/2"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (1/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.625" screws @ 12" O.C. 0.625" (1/8") Type X gypsum board; 1" screws @ 8" O.C. for vertical joints and @ 12" O.C. for wall perimeter and intermediate studs. 3 3/8" 25-gauge steel studs @ 24" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (1/8") Type X gypsum board; 1" screws @ 12" O.C. <p>GA file number WP 1052 F.M. WP-45</p>
<p>STC 58 Test #OL08-0610 Assembly Thickness 5 1/2"</p>  <p>ASSEMBLY DESCRIPTION</p> <ol style="list-style-type: none"> 0.625" (1/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 2" screws @ 12" O.C. 0.625" (1/8") Type X gypsum board; 1.25" screws @ 12" O.C. 3 3/8" 25-gauge steel studs @ 24" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (1/8") Type X gypsum board; 1.25" screws @ 12" O.C. <p>GA file number WP 1522 WHI-495-0236</p>	<p>STC 60 Test #OL08-0913 Assembly Thickness 6 1/8"</p>  <p>ASSEMBLY DESCRIPTION 2-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (1/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.625" screws @ 12" O.C. 0.625" (1/8") Type X gypsum board; 1" screws @ 12" O.C. 3 3/8" 25-gauge steel studs @ 24" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (1/8") Type X gypsum board; 1" screws @ 12" O.C. 0.625" (1/8") Type X gypsum board; 1.625" screws @ 12" O.C.

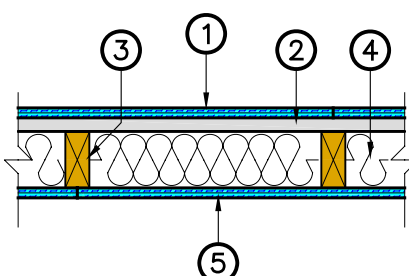
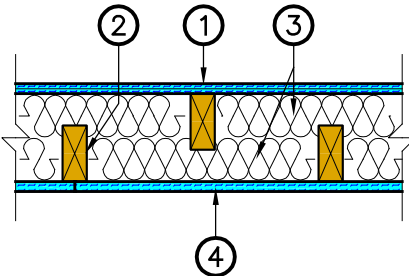
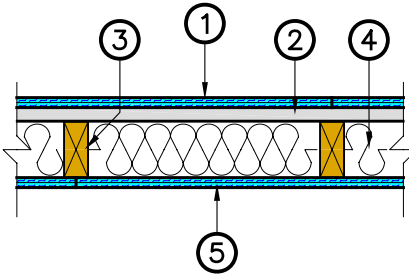
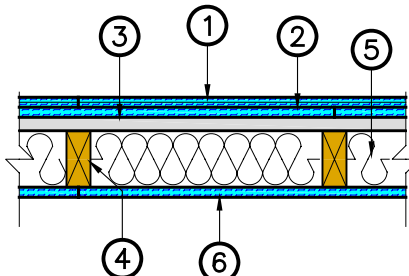
Assembly Description (listed in order from source room side to receiver room side)

ACOUSTIC WALL ASSEMBLIES

<p>STC 45 Test #0L08-0907 Assembly Thickness 4 3/4"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.25" screws @ 12" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.25" screws @ 12" O.C. <p>GA file number WP 3514 SWRI 01-4511-09</p>	<p>STC 50 Test #0L08-0908 Assembly Thickness 5 1/4"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1" screws @ 8" O.C. Resilient Channel @ 16" O.C.; 1.25" screws @ 16" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.25" screws @ 12" O.C. <p>GA file number WP 3242 U.L. U309</p>
<p>STC 47 Test #0L08-0905 Assembly Thickness 4 3/4"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.875" 6d nails @ 7" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.875" 6d nails @ 7" O.C. <p>GA file number WP 3605 U.L. U305</p>	<p>STC 51 Test #0L08-0910 Assembly Thickness 4 3/4"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.875" 6d nails @ 7" O.C. 2 x 4" Wood Studs @ 24" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.875" 6d nails @ 7" O.C. <p>GA file number WP 3510 U.L. U314</p>

Assembly Description (listed in order from source room side to receiver room side)

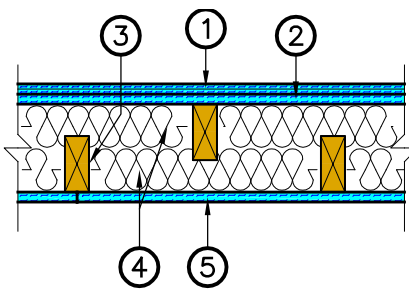
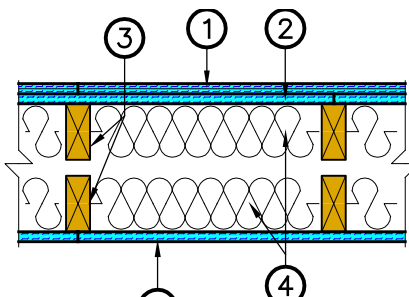
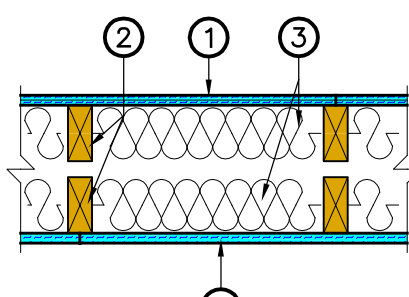
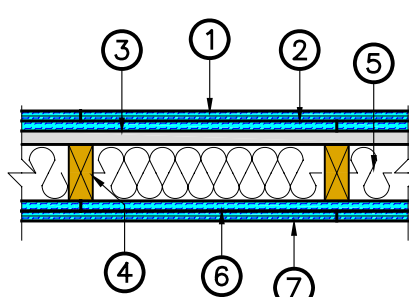
ACOUSTIC WALL ASSEMBLIES

<p>STC 54 Test #OL08-0603 Assembly Thickness 5 1/4"</p>  <p>ASSEMBLY DESCRIPTION</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.25" screws @ 12" O.C. Resilient Channel @ 24" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.25" screws @ 16" O.C. 	<p>STC 56 Test #OL09-1111 Assembly Thickness 6 3/4"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.25" screws @ 12" O.C. 2 x 4" Wood Studs @ 16" O.C.; staggered on 2 x 6" plate (3 1/2") R13 glass fiber insulation batts; 2 layers 0.625" (5/8") Type X gypsum board; 1.25" screws @ 12" O.C. <p style="text-align: center;">GA file number WP 3514 SWRI 01-4511-619</p>
<p>STC 56 Test #OL08-0602 Assembly Thickness 5 1/4"</p>  <p>ASSEMBLY DESCRIPTION</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.25" screws @ 12" O.C. Resilient Channel @ 24" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.25" screws @ 16" O.C. 	<p>STC 59 Test #OL08-0606 Assembly Thickness 5 7/8"</p>  <p>ASSEMBLY DESCRIPTION</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 2" screws @ 12" O.C. 0.625" (5/8") Type X gypsum board; 1.625" screws @ 12" O.C. Resilient Channel @ 24" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.25" screws @ 16" O.C.

Assembly Description (listed in order from source room side to receiver room side)

ACOUSTIC WALL ASSEMBLIES

Assembly Description (listed in order from source room side to receiver room side)

<p>STC 59 Test #OL09-1112 Assembly Thickness 7 3/8"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.625" screws @ 12" O.C. 0.625" (5/8") Type X gypsum board; 1.25" screws @ 12" O.C. 2 x 4" Wood Studs @ 16" O.C.; staggered on 2 x 6" plate (3 1/2") R13 glass fiber insulation batts; 2 layers 0.625" (5/8") Type X gypsum board; 1.625" screws @ 12" O.C. <p>GA file number WP 3514 SWRI 01-4511-619</p>	<p>STC 62 Test #OL09-1114 Assembly Thickness 9 7/8"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.625" screws @ 12.C. 0.625" (5/8") Type X gypsum board; 1.25" screws @ 12" O.C. 2 x 4" Wood Studs @ 16" O.C.; double wall separated by 1" dead space (3 1/2") R13 glass fiber insulation batts; 2 layers 0.625" (5/8") Type X gypsum board; 1.625" screws @ 12" O.C. <p>GA file number WP 3514 SWRI 01-4511-619</p>
<p>STC 60 Test #OL09-1113 Assembly Thickness 9 1/4"</p>  <p>ASSEMBLY DESCRIPTION 1-hr Fire Rated Assembly</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 1.25" screws @ 12.C. 2 x 4" Wood Studs @ 16" O.C.; double wall separated by 1" dead space (3 1/2") R13 glass fiber insulation batts; 2 layers 0.625" (5/8") Type X gypsum board; 1.25" screws @ 12" O.C. <p>GA file number WP 3514 SWRI 01-4511-619</p>	<p>STC 63 Test #OL08-0607 Assembly Thickness 6 1/2"</p>  <p>ASSEMBLY DESCRIPTION</p> <ol style="list-style-type: none"> 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 2" screws @ 12" O.C. 0.625" (5/8") Type X gypsum board; 1.625" screws @ 12" O.C. Resilient Channel @ 24" O.C. 2 x 4" Wood Studs @ 16" O.C. (3 1/2") R13 glass fiber insulation batts 0.625" (5/8") Type X gypsum board; 1.25" screws @ 16" O.C. 0.625" (5/8") Temple-Inland ComfortGuard® sound-deadening gypsum board; 2" screws @ 16" O.C.