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UL.COM/GG
UL 2818

CGC SHEETROCK BRAND ULTRALIGHT PANELS

SOUND PERFORMANCE SELECTOR GUIDE

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IT'S YOUR WORLD. BUILD IT.™


SHEETROCK
UltraLight
FIRECODE X 5/8" x 4' x 12'

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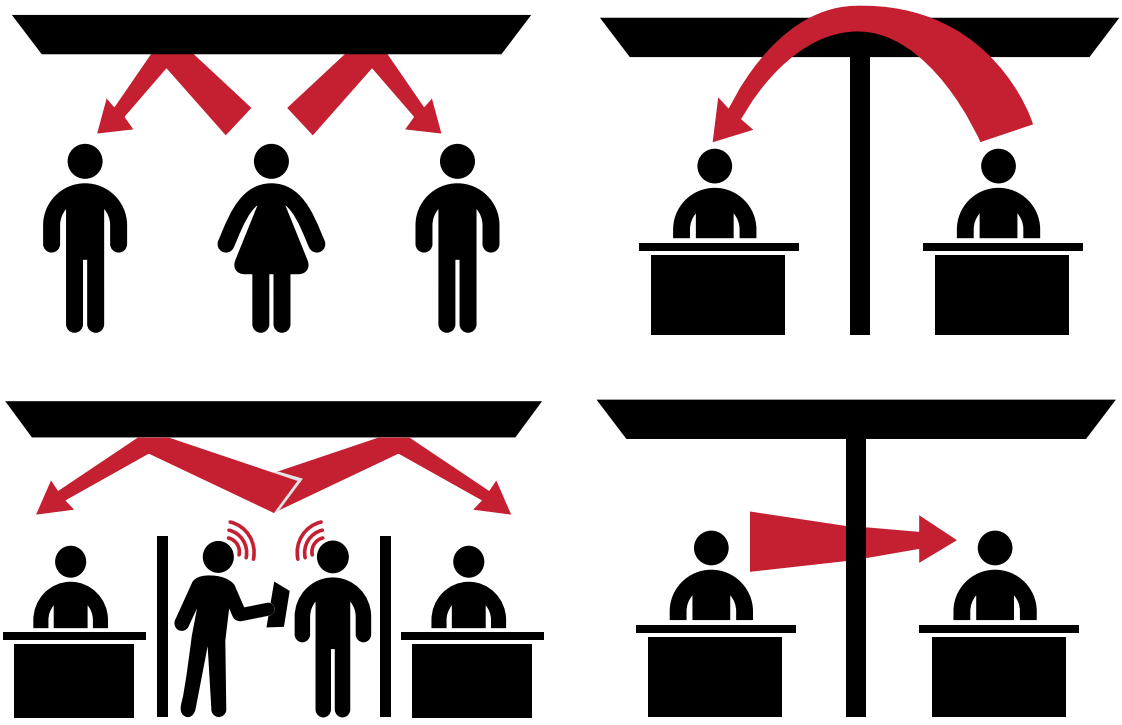
THE WAY SOUND TRAVELS THROUGH SPACES

Sound travels as a vibratory wave in an elastic medium. At a molecular level, sound is generated when a vibrating object (such as a loudspeaker or human vocal cords) pushes against particles of the medium (such as air) adjacent to it, back and forth, creating an alternate compression and rarefaction of the medium. These disturbances move away from the source in a wave motion, much as a ripple moves along the surface of water when a stone is dropped in.

Airborne sound generally travels in a straight path from its source. However, when sound interacts with other objects and materials, the wave may bounce off partitions, bend around barriers and squeeze through small openings. Air, like water, is adept at sneaking through and around barriers. Consequently, sound traveling through air will exploit the weakest points of a barrier and transfer through even the smallest openings quite efficiently.

The more elastic a substance, the better it can conduct sound. Elasticity is the ability of a material to resist distortion and to return to its original shape after having been subjected to a force. Highly elastic materials, such as steel, are excellent conductors of sound, while inelastic materials, such as gypsum board, can help resist transmission of sound. In the design of sound-rated construction assemblies, the introduction and combination of elastic and inelastic materials can be tailored to meet specific needs of a system.



CONTROLLING AIRBORNE SOUND[1]

The control of airborne sound in any building is determined by the applicable building codes. Among the most important factors used for sound control are:

- **Mass:** Sound waves must overcome the mass (weight) of a medium before the particles of the medium can be set into motion to transmit sound. Mass may be a factor in the reduction of impact sound transmission. It is most effective—though unpredictable—in the lower frequencies.
- **Isolation:** The retardation of the flow of airborne and structure-borne sound through an assembly or use of special materials, methods of construction and designs. Decoupling is one isolation method, in which the elements of a partition are separated to retard transmission of structure-borne sound.
- **Damping:** When the full capabilities of mass and isolation have been utilized, the next logical step is damping. A method of damping is the process of introducing fibrous sound-absorbing material into the partition to increase the transmission loss. (Damping in floor-ceiling construction has a wider application for impact sound than for airborne sound.) There are several ways to introduce damping beyond just insulation, including limp mass barrier materials.
- **Leaks:** Any leak in a partition that will allow air or light to pass will also leak sound. Small holes in a wall, openings for electrical boxes and plumbing, and cracks around doors are all leaks that will allow sound to pass, destroying the noise reduction effectiveness of the assembly.
- **Flanking Paths:** Sound waves have sufficient energy to set any construction (assembly) in motion. That means that sound can bypass a sound partition by activating the floor on which the partition rests. Flanking paths are as important to impact sound as to airborne sound.
- **Masking Level:** Background noise (such as from air conditioning or human activities), also known as masking level, plays an important part in the apparent acoustical performance of a partition. A partition for an apartment located in an area that has considerable amount of outside or “street” noise may prove quite satisfactory, while the same partition in a quiet neighborhood would be unsatisfactory. The difference is the background noise, which “masks” the sound being transmitted through the partition.
- **Impact Sound Isolation:** Impact sound is also transmitted by vibration, but the energy setting the floor, ceiling or wall into vibration is supplied by a physical act, such as footsteps, a bouncing ball, dropping a toy or a frying pan, moving furniture or slamming a door.

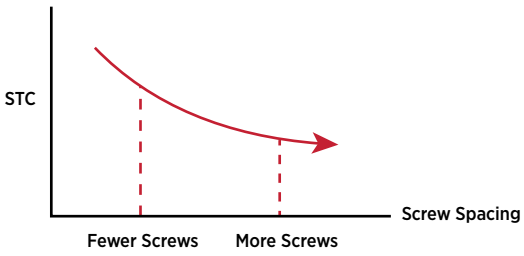
Note:

1. Excerpted with permission from the publisher, Wiley, from *The Gypsum Construction Handbook*—Seventh Edition by USG Corporation. Copyright © 2014.

KEY FACTORS THAT CONTRIBUTE TO SOUND TRANSMISSION CLASS (STC)

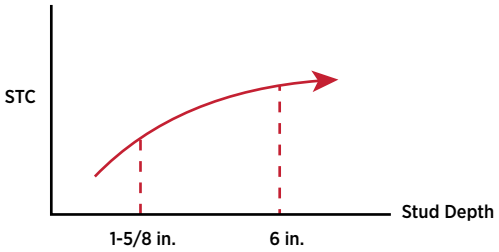
SCREW SPACING

Screws spaced closer together will decrease STC and sound isolation.



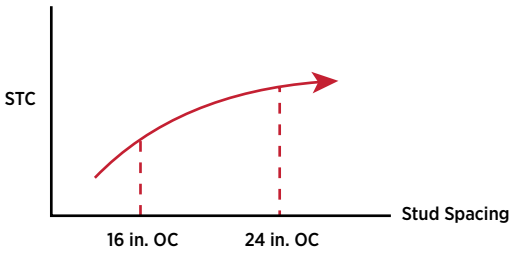
STUD DEPTH

Greater stud depth allows for more airspace and increased performance.



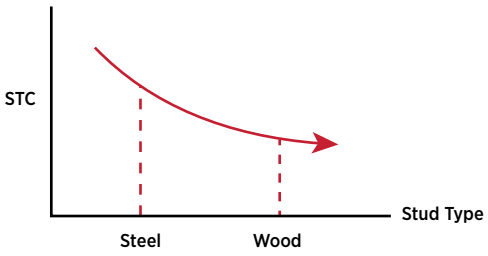
STUD SPACING

Wider stud spacing creates larger air cavities and decreased stiffness for better sound isolation.



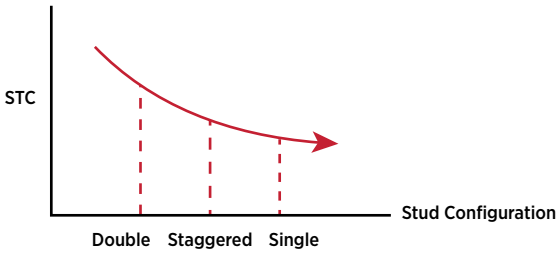
STUD TYPE

Steel studs allow greater flexibility and sound isolation without reducing structural integrity.



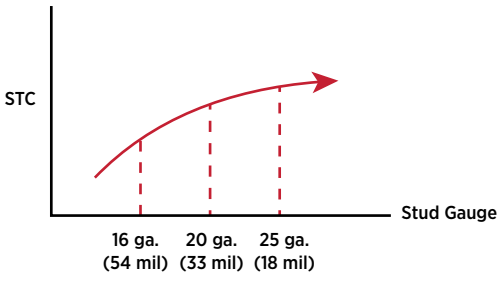
STUD CONFIGURATION

Separating stud frames adds decoupling and increased air space, increasing sound transmission loss.



STUD GAUGE

Light gauge studs provide better sound isolation than heavy gauge studs.



RESILIENT CHANNELS AND IMPACT ON ACOUSTICAL PERFORMANCE

One of the most effective products for reducing the transmission of airborne sound through wall or floor-ceiling assemblies is the resilient channel. Its fundamental purpose is to decouple the gypsum board from the framing members, thus improving noise isolation by increasing sound transmission loss.

In the 1960s, USG developed the industry's first resilient channel, designated "RC-1." A critical component of its design was the location of the framing member in relation to the slotted (or "dog bone") holes. Specifically, there were 1/8-in.-diameter holes every four inches for screws to attach the channel to the framing members. From an installation standpoint, these slotted holes were always centered on the framing members to ensure maximum acoustical performance. Over the years there have been numerous imitations, and while most use 25-gauge steel, other design variables such as width, shape and hole pattern were always different.

In the early 1990s, USG sold the rights the original RC-1 design. Since then, the USG RC-1 has been rebranded and sold under the name ClarkDeitrich RC Deluxe™, while the RC-1 designation has become a generic descriptor of resilient channels.

Of the resilient channels currently on the market, the ClarkDietrich RC Deluxe™ is the closest to the USG RC-1 design. It retains many of the original design characteristics, such as the "dog bone" slots that are centered on pre-punched screw holes in the flange, as well as an extra-wide 1-1/2 in. flange that simplifies the installation of gypsum board.

From an acoustical perspective, there is ample evidence that the brand of resilient channel can make a significant difference in the overall performance of the assembly. Veneklasen Associates, one of the oldest and most respected acoustical consulting firms in the world, performed controlled laboratory tests on the effects of resilient channel brands and installation methods on airborne sound isolation in single stud wall construction.[2] For comparison, airborne transmission loss testing was conducted using ASTM E90 for a wood stud assembly that's commonly encountered in multifamily residential projects. Their data shows that the ClarkDietrich RC Deluxe™ achieved STC ratings between 3-7 points higher than the other channels, with differences of up to 10 dB at some third-octave bands.

Due to its superior acoustical performance and relative installation ease, USG has been conducting acoustical laboratory testing using the ClarkDietrich RC Deluxe™ for several years. It is strongly recommended that before specifying or installing a different resilient channel brand, one should first thoroughly research its acoustical performance data.

Note:

2. Excerpted from LoVerde, John, Dong, Wayland (2009), Quantitative comparisons of resilient channel designs and installation methods, *Inter-Noise 2009*.

STEEL STUD THICKNESS AND IMPACT ON ACOUSTICAL PERFORMANCE

In drywall framing applications, steel studs are selected based on several factors, including structural capacity, which is primarily dictated by the yield strength of the steel and its thickness, or gauge (ga.) Table 1 lists steel gauge values of conventional steel framing with their associated minimum base steel thickness. These gauge and thickness values have become the basis for design nomenclature related to steel framed partitions. However, over the past 15 years the development of equivalent gauge (EQ) studs has added a layer of complexity to the design and specification of steel framed partitions, particularly as it relates to acoustics. Ranges for steel thickness of EQ studs are shown in Table 2, though it's important to note that EQ stud thicknesses vary by manufacturer and continue to change over time, as steel framing manufacturers develop and improve their products.

Table 1: Conventional Gauge Steel Thickness

Conventional Steel Framing	
Steel Gauge	**Steel Thickness**
25 ga.	18 mil (0.018 in.)
22 ga.	27 mil (0.027in.)
20 ga.[3]	30 mil (0.030 in.)[3]
20 ga.[3]	33 mil (0.033 in.)[3]
18 ga.	43 mil (0.043 in.)
16 ga.	54 mil (0.054 in.)
14 ga.	68 mil (0.068 in.)

Table 2: Equivalent Gauge Steel Thickness

Equivalent Gauge Steel Framing	
Equivalent Gauge	**Steel Thickness**[4]
EQ25	15 - 16 mil (0.015 in. – 0.016 in.)
EQ20	18 - 20 mil (0.018 in. – 0.020 in.)

In terms of acoustical performance, steel thickness of the stud can play a dominant role in the sound transmission class (STC) value of a partition. Generally speaking, a partition constructed with thinner (higher gauge) steel studs will yield higher STC performance than that same partition constructed with thicker (lower gauge) steel studs. As illustrated in Table 3, the difference between conventional 20 ga. (33 mil) studs and 25 ga. (18 mil) studs in the same system configuration can be as much as 6 STC points. Based on extensive testing conducted by USG, STC performance for walls constructed with EQ studs is largely dependent on the steel thickness, reflected in Table 4, which shows equivalent STC values for a wall system constructed with conventional 25 ga. (18 mil) studs and EQ20 (19 mil) studs.

According to the Steel Framing Industry Association, EQ studs account for about 90 percent of all cold-formed steel studs used in the United States.[5] Because of this, acoustical data for steel framed walls contained in this document are for systems constructed with EQ studs, unless otherwise noted.

STEEL STUD THICKNESS AND IMPACT ON ACOUSTICAL PERFORMANCE (CONTINUED)

Table 3: STC Comparison of Conventional Studs

Comparison of Conventional Studs		
Steel System Description	**20 ga. (33 mil)**	**25 ga. (18 mil)**
• (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Firecode® X Panels • 92 mm (3-5/8 in.) Steel Studs Spaced 610 mm (24 in.) OC • 89 mm (3-1/2 in.) Fiberglass Insulation • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Firecode® X Panels	STC 42 (USG-101001)	STC 48 (RAL-TL11-074)

Table 4: STC Comparison of Conventional and EQ Studs

Comparison of Conventional and EQ Studs		
Steel System Description	**25 ga. (18 mil)**	**EQ20 (19 mil)**
• (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X • 92 mm (3-5/8 in.) Steel Studs Spaced 610 mm (24 in.) OC • 89 mm (3-1/2 in.) Fiberglass Insulation • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X	STC 48 (RAL-TL11-068)	STC 48 (USG-150923)

Notes:

3. Two thicknesses of 20-gauge studs exist in the market today: the thinner 20 ga./30 mil stud is considered a nonstructural framing member as defined in ASTM C645, while the thicker 20 ga./33 mil stud is a structural framing member as defined in ASTM C955. Steel thickness exceeding 30 mil (0.030 in.) base metal thickness falls into the category of a structural member per ASTM C955.
4. Steel thickness of equivalent gauge framing varies by manufacturer and product. It is common practice for USG to utilize ClarkDietrich ProSTUD® products in laboratory acoustical tests referenced in this document.
5. Steel Framing Industry Association (sfia.memberclicks.net).

SOUND TRANSMISSION LOSS TESTING AND BEST PRACTICES

To ensure the highest performing gypsum panels, sound transmission and impact insulation tests were conducted by accredited laboratories for acoustical performance under laboratory conditions in accordance with ASTM E90, ASTM E413, ASTM E492 and ASTM E989. Additionally, construction of systems listed within reference specific UL Design or GA File Numbers as basis of design.

It is also important to follow best practices for sound control design and installation in order to obtain optimal installed acoustical performance. A basic rule is that sound performance is compromised any place where air can pass. Best practices include but are not limited to:

- All perimeters not covered with joint compound and tape shall be sealed with USG Sheetrock® Brand Acoustical Sealant, including between the floor and the base of the gypsum panels.
- The number and size of penetrations in a partition should be minimized and all openings should be completely sealed.
- Electrical boxes installed on opposite sides of a partition should not be back-to-back or in the same stud cavity. Any unused openings in boxes should be sealed.
- Solid wood or mineral core doors with gasketed frames can help the acoustical performance of the system.
- Use lightweight steel framing instead of wood studs to transmit less sound energy.
- Add fiberglass or mineral wool sound control insulation in the stud cavities.
- Use resilient channels to structurally isolate the gypsum panels from the framing.
- Use sound control underlayment or carpet on pad to reduce impact of sound transmission in floor-ceiling assemblies.

More specific information regarding sound control design and construction can be found in the *USG Gypsum Construction Handbook* and Gypsum Association's *Fire Resistance Design Manual* (GA-600).

GENERAL ACOUSTIC PERFORMANCE GUIDELINES

While some differences in Sound Transmission Class (STC) value may be seen in the comparison data for wall assemblies, the differences are minimal and likely due to standard variations[6] in laboratory testing. Additionally, it has been found that the human ear cannot detect variances in sound levels that are less than 3 dB, as shown in the following chart.

Change in Sound Level	Change in Apparent Loudness
1-2 dB	Indiscernible
3 dB	Just perceptible
5 dB	Clearly noticeable
10 dB	Twice as loud (or quiet)
20 dB	Four times as loud (or quiet)

Note:

6. Based on an interlaboratory comparison, the reproducibility standard deviation for reference specimens tested per ASTM E90, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Element*, was found to be 2 dB or less in the test frequency range.

LEED® v4 ACOUSTIC PERFORMANCE CREDIT

Intent: To provide occupied spaces, offices and classrooms that promote occupants' well-being, productivity and communications through effective acoustic design.

Requirements: All occupied spaces in new construction must meet the following requirements, as applicable, for HVAC background noise, sound isolation, reverberation time, and sound reinforcement and masking.

Sound Transmission: Meet the composite sound transmission class (STC) ratings listed in the below table, or local building code, whichever is more stringent.

Minimum STC for Adjacent Spaces		STC Minimum[7]
Multifamily residence, hotel and motel	Residence, hotel or motel	**55**
Residence, hotel or motel	Common hallway, stairway	**50**
Residence, hotel or motel	Retail	**60**
Standard office	Standard office	**45**
Executive office	Executive office	**50**
Conference room	Conference room	**50**
Office, conference room	Hallway, stairway	**50**
Mechanical room	Occupied area	**60**

Note:

7. Excerpted from *LEED® v4 Building Design and Construction Rating System Guide* by U.S. Green Building Council. Published April 14, 2017.

HOW TO INTERPRET SYSTEM LISTINGS

SYSTEM OVERVIEW

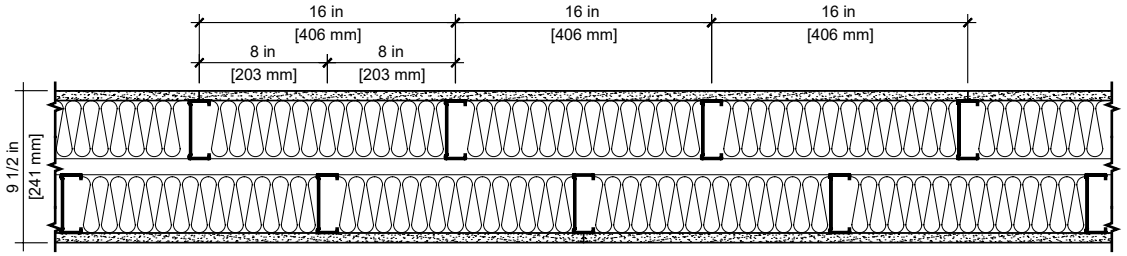
92 mm (3-5/8 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U493)

UL DESIGN/GA FILE NUMBER

GYPSUM PANEL TYPE

STUD TYPE [8]

Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20



SYSTEM DETAIL WITH DIMENSIONS

HOURLY FIRE RESISTANCE RATING

One-Hour Fire Resistance Rating

SYSTEM DESCRIPTION

	Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	241 mm (9-1/2 in.)	**58** USG-160904	**61** USG-160912	**59** USG-160848	**60** USG-160901
MID	• 92 mm (3-5/8 in.)Steel Studs, Offset; Separate Tracks • 89 mm (3-1/2 in.) Fiberglass Insulation in Both Cavities • 25 mm (1 in.) Air Space					
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels					

Note:

8. For steel studs, gauge or equivalent gauge is shown (refer to page 8 for more information). For wood studs, nominal dimensions are shown.

SYSTEM THICKNESS

STC VALUE

TEST REPORT NUMBER

CGC SHEETROCK® BRAND ULTRALIGHT PANELS FIRECODE® X (UL TYPE ULIX™)

CGC SHEETROCK® BRAND ULTRALIGHT PANELS FIRECODE® X (UL TYPE ULIX™)

CGC Sheetrock® Brand UltraLight Panels Firecode® X is the industry's first and lightest Type X gypsum panel. This panel has been formulated to achieve all of the strength and performance characteristics as standard 15.9 mm (5/8 in.) CGC Sheetrock® Brand Firecode® Gypsum Panels at a significantly reduced weight.

- Comply with ASTM C1396 specification for 15.9 mm (5/8 in.) Type X gypsum wallboard
- Underwriters Laboratories Inc. (UL) Certified for Canada as to fire resistance, surface-burning characteristics and noncombustibility
- Listed by UL in the most widely specified wall, column, floor-ceiling and roof-ceiling assemblies (refer to specific UL designs for complete details)
- Offer comparable sound, strength, sag and impact resistance to standard 15.9 mm (5/8 in.) Type X
- Up to 94.6% recycled content (regionally available)
- Achieved GREENGUARD Gold Certification and qualify as a low VOC emitting material (meets CA 01350)

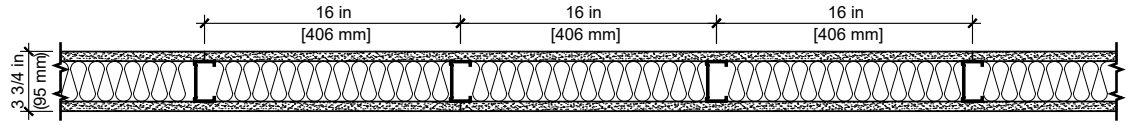
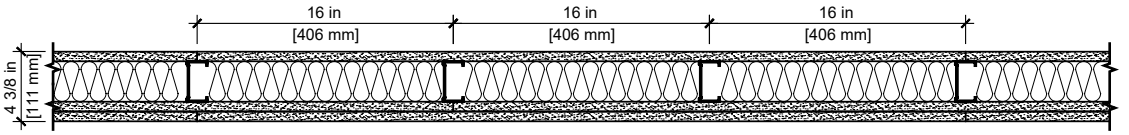
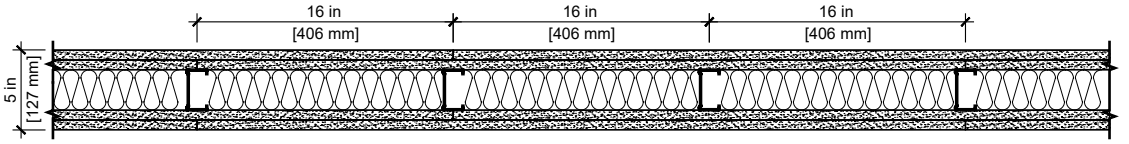
CGC Sheetrock® Brand UltraLight Panels Firecode® X (UL Type ULIX™) are ideal for use in:

- Commercial or residential applications where 15.9 mm (5/8 in.) Type X panels are required
- New or repair and remodel construction
- Load-bearing and non-load-bearing wood or steel-framed fire-rated walls
- Any UL design in which Type ULIX™ panels are listed

ACOUSTICAL PERFORMANCE

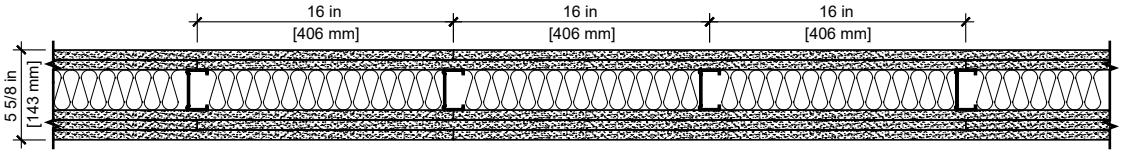
Product	UL Type Designation
CGC Sheetrock® Brand UltraLight Panels Firecode® X	ULIX™
CGC Sheetrock® Brand Firecode® X Panels (traditional)	SCX

64 mm (2-1/2 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U419)

			STC	
Partition Description		**System Thickness**	**ULIX™ EQ20**	**SCX EQ20**
				
One-Hour Fire Resistance Rating				
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	95 mm (3-3/4 in.)	**40** USG-170410	**41** USG-170407
MID	• 64 mm (2-1/2 in.) Steel Studs • 64 mm (2-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			
				
One-Hour Fire Resistance Rating				
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	111 mm (4-3/8 in.)	**44** USG-170402	**44** USG-170411
MID	• 64 mm (2-1/2 in.) Steel Studs • 64 mm (2-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			
				
Two-Hour Fire Resistance Rating				
SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	127 mm (5 in.)	**49** USG-170403	**48** USG-170412
MID	• 64 mm (2-1/2 in.) Steel Studs • 64 mm (2-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

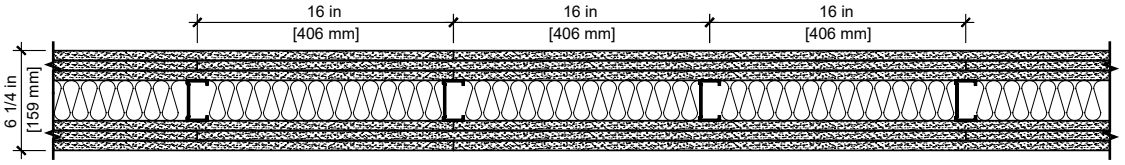
64 mm (2-1/2 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U419) CONTINUED

Partition Description	System Thickness	STC ULIX™ EQ20	STC SCX EQ20



Two-Hour Fire Resistance Rating

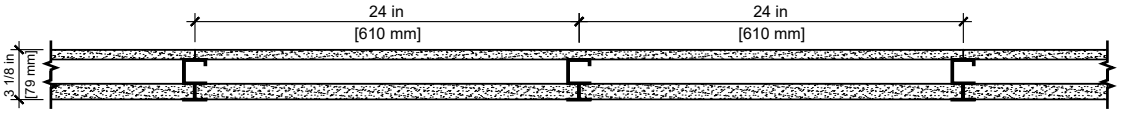
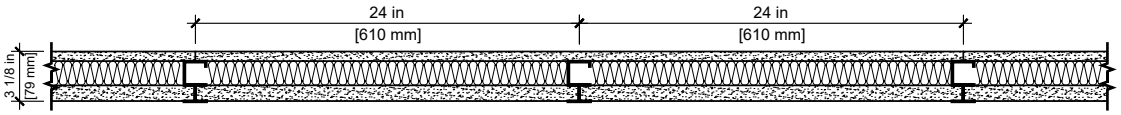
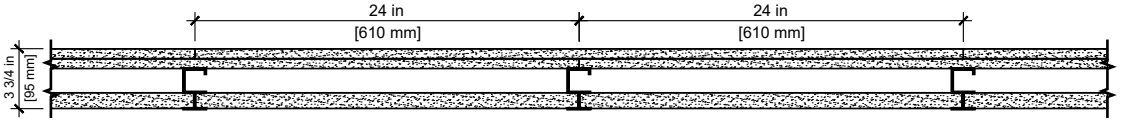
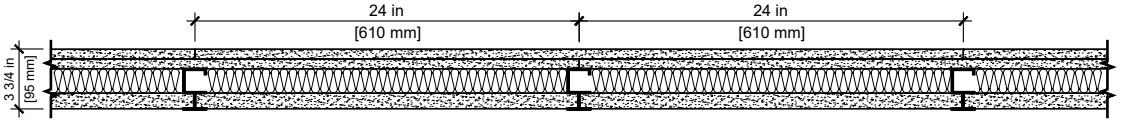
SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	143 mm (5-5/8 in.)	**52** USG-170404	**52** USG-170413
MID	• 64 mm (2-1/2 in.) Steel Studs • 64 mm (2-1/2 in.) Fiberglass Insulation			
SIDE B	(3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			



Three-Hour Fire Resistance Rating

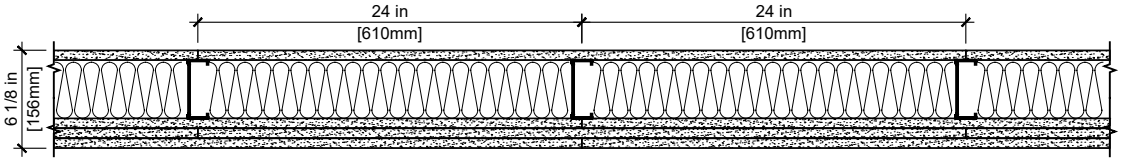
SIDE A	(3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	159 mm (6-1/4 in.)	**52** USG-170407	**53** USG-170416
MID	• 64 mm (2-1/2 in.) Steel Studs • 64 mm (2-1/2 in.) Fiberglass Insulation			
SIDE B	(3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

64 mm (2-1/2 in.) STEEL STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U415)

Partition Description	System Thickness	STC ULIX™ 20 Gauge C-H Stud	STC SCX 20 Gauge C-H Stud
			
One-Hour Fire Resistance Rating SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: 64 mm (2-1/2 in.) C-H Studs SIDE B: (1) Layer 25.4 mm (1 in.) CGC Sheetrock® Brand Gypsum Liner Panels	79 mm (3-1/8 in.)	**33** USG-170524	**34** USG-170417
			
One-Hour Fire Resistance Rating SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 64 mm (2-1/2 in.) C-H Studs • 64 mm (2-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 25.4 mm (1 in.) CGC Sheetrock® Brand Gypsum Liner Panels	79 mm (3-1/8 in.)	**43** USG-170521	**45** USG-170422
			
Two-Hour Fire Resistance Rating SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: 64 mm (2-1/2 in.) C-H Studs SIDE B: (1) Layer 25.4 mm (1 in.) CGC Sheetrock® Brand Gypsum Liner Panels	95 mm (3-3/4 in.)	**37** USG-170526	**37** USG-170418
			
Two-Hour Fire Resistance Rating SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 64 mm (2-1/2 in.) C-H Studs • 64 mm (2-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 25.4 mm (1 in.) CGC Sheetrock® Brand Gypsum Liner Panels	95 mm (3-3/4 in.)	**47** USG-170522	**48** USG-170427

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U408)

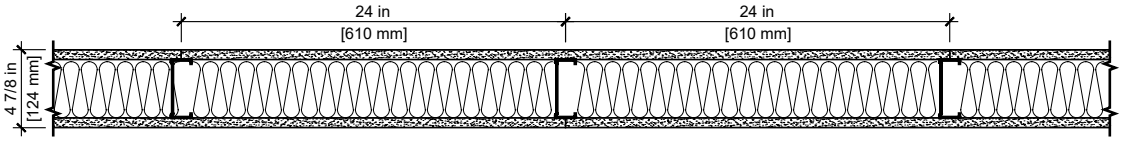
Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25



Two-Hour Fire Resistance Rating

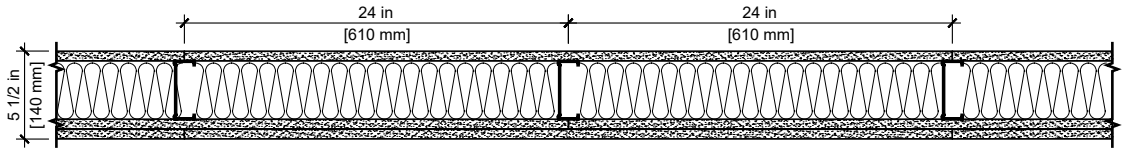
	Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	156 mm (6-1/8 in.)	**51** NOAL 18-0304	**53** NOAL 18-0309
MID	• 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U419)



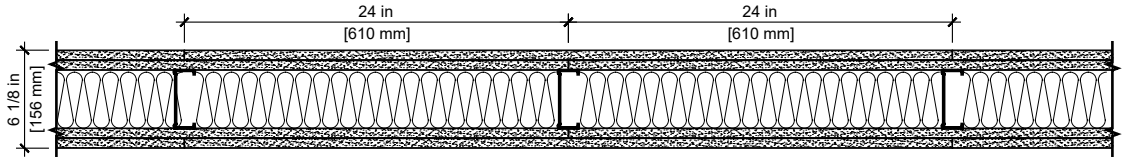
One-Hour Fire Resistance Rating

Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	124 mm (4-7/8 in.)	**48** USG-190434	**49** USG-190432	**48** USG-180617	**48** USG-180602



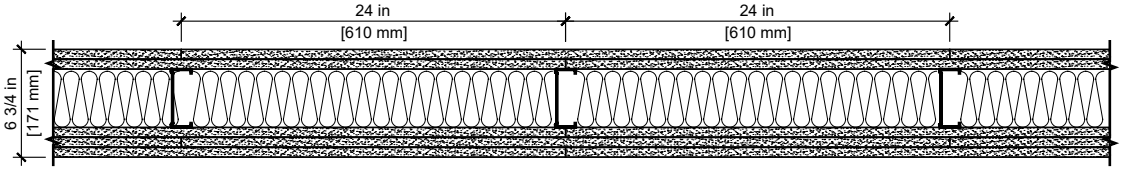
One-Hour Fire Resistance Rating

Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	140 mm (5-1/2 in.)	**51** USG-190501	**51** USG-190433	**50** USG-160727	**50** USG-180603



Two-Hour Fire Resistance Rating

Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	156 mm (6-1/8 in.)	**54** USG-190502	**53** RAL-TL11-126*	**52** USG-160730	**53** USG-180604

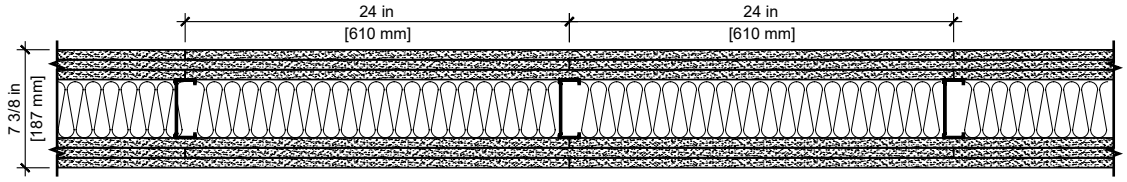


Two-Hour Fire Resistance Rating

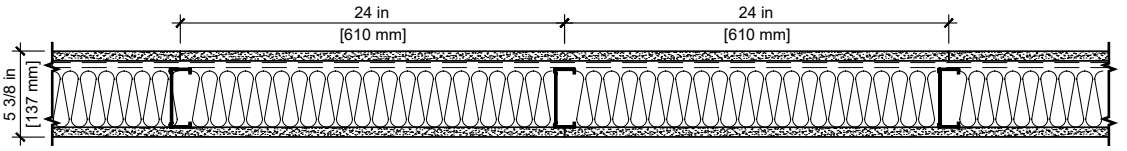
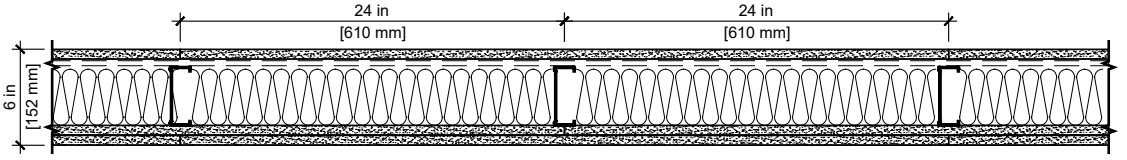
Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	171 mm (6-3/4 in.)	**55** USG-160723	**56** USG-190204	**54** USG-160731	**53** USG-190207

* Sound tests were conducted on traditional gauge studs. Performance on EQ studs will meet or exceed listed STC rating.

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U419) CONTINUED

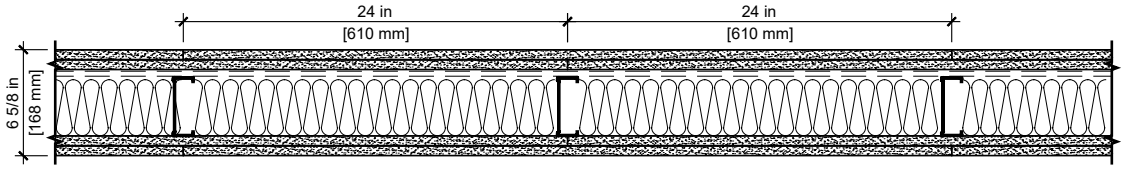
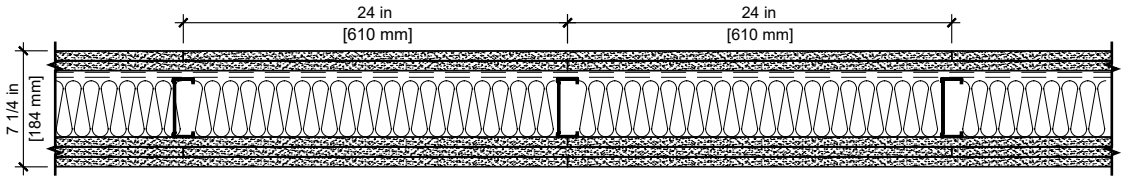
Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
					
Three-Hour Fire Resistance Rating					
SIDE A: (3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	187 mm (7-3/8 in.)	**56** USG-160724	**58** USG-190206	**55** USG-160732	**55** USG-190209

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC AND RESILIENT CHANNEL (UL DESIGN U419)

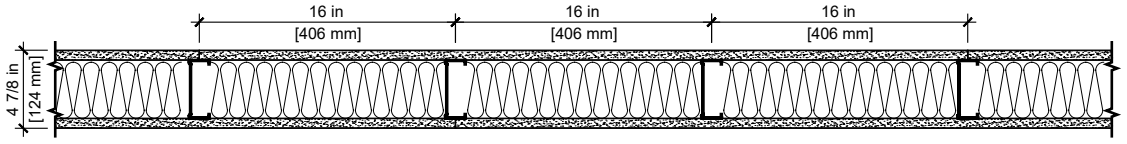
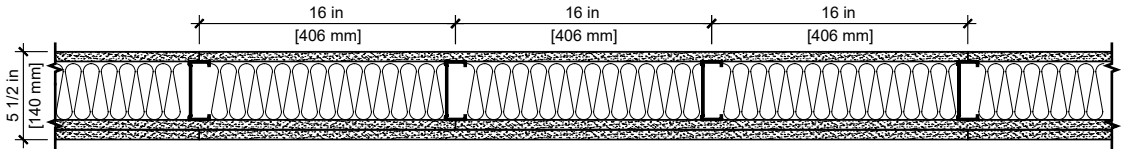
Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
					
One-Hour Fire Resistance Rating					
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe® MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	137 mm (5-3/8 in.)	**51** USG-151202	**52** RAL-TL11-073*	**50** USG-151203	**51** RAL-TL12-203
					
One-Hour Fire Resistance Rating					
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe® MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	152 mm (6 in.)	**54** USG-151201	Not tested	**53** USG-151206	Not tested

* Sound tests were conducted on traditional gauge studs. Performance on EQ studs will meet or exceed listed STC rating.

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC AND RESILIENT CHANNEL (UL DESIGN U419) CONTINUED

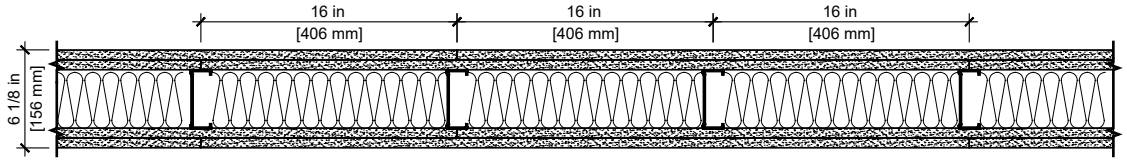
Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
 **Two-Hour Fire Resistance Rating** SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe® MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	168 mm (6-5/8 in.)	**57** USG-161006	Not tested	**57** USG-160839	Not tested
 **Two-Hour Fire Resistance Rating** SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe® MID: • 92 mm (3-5/8 in.) Steel Studs •89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (3) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	184 mm (7-1/4 in.)	**57** USG-161007	Not tested	**58** USG-160843	Not tested

92 mm (3-5/8 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U419)

Partition Description	System Thickness	STC ULIX™ EQ20	STC SCX EQ20
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.)Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	124 mm (4-7/8 in.)	**44** USG-150919	**45** RAL-TL12-194
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	140 mm (5-1/2 in.)	**46** USG-150807	**47** RAL-TL12-195

92 mm (3-5/8 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U419) CONTINUED

Partition Description	System Thickness	STC ULIX™ EQ20	STC SCX EQ20

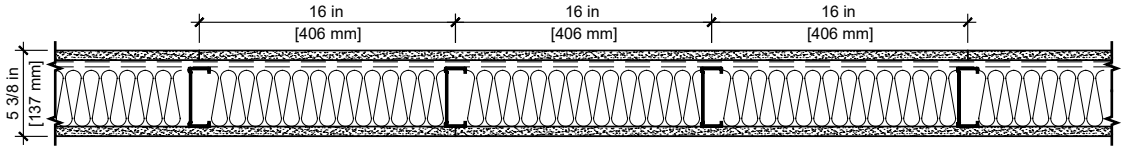


Two-Hour Fire Resistance Rating

SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	156 mm (6-1/8 in.)	51 USG-161222	53 USG-170104
MID	• 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

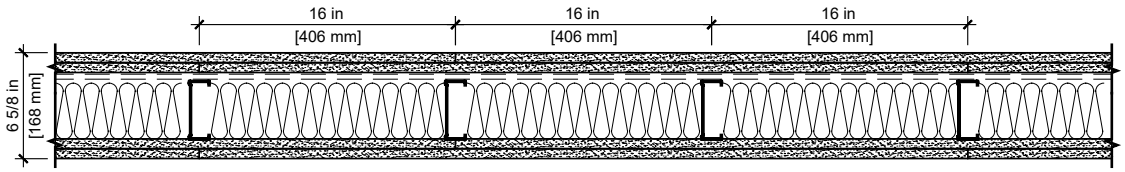
92 mm (3-5/8 in.) STEEL STUDS SPACED 406 mm (16 in.) OC AND RESILIENT CHANNEL (UL DESIGN U419)

Partition Description	System Thickness	STC ULIX™ EQ20	STC SCX EQ20



One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	137 mm (5-3/8 in.)	49 USG-151205	50 RAL-TL12-197
MID	• 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

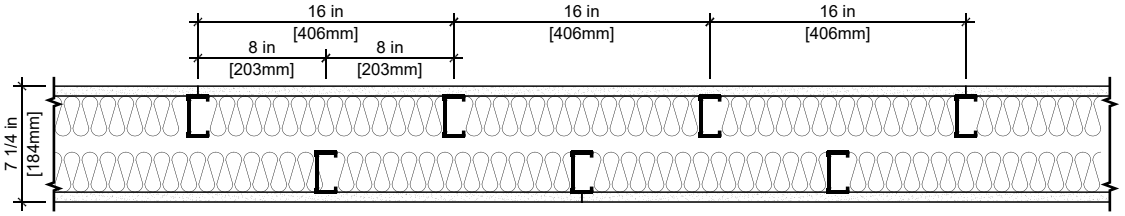


Two-Hour Fire Resistance Rating

SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	168 mm (6-5/8 in.)	56 USG-161223	58 USG-161225
MID	• 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

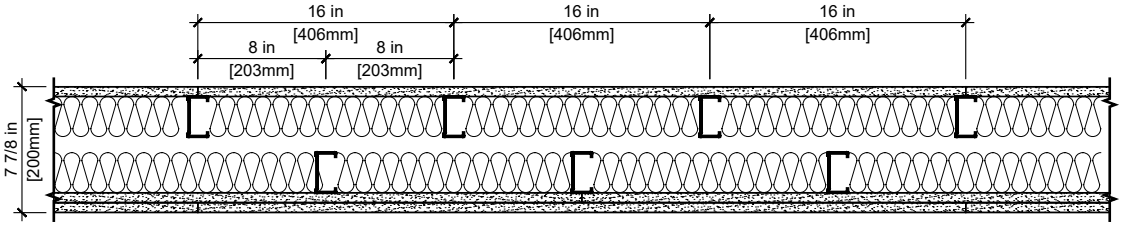
64 mm (2-1/2 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (GA FILE NUMBER WP 5006)

Partition Description	System Thickness	STC ULIX™ EQ20	STC SCX EQ20



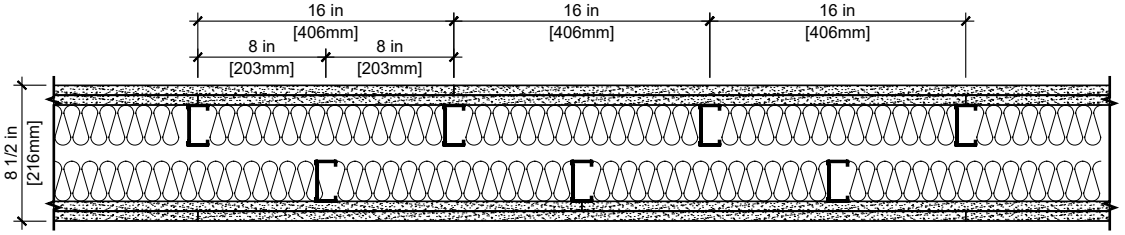
One-Hour Fire Resistance Rating

		System Thickness	STC ULIX™ EQ20	STC SCX EQ20
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	184 mm (7-1/4 in.)	54 USG-180121	58 USG-180116
MID	• 64 mm (2-1/2 in.) Steel Studs, Staggered • 25 mm (1 in.) Air Space • 64 mm (2-1/2 in.) Fiberglass Insulation (Both Sides)			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			



One-Hour Fire Resistance Rating

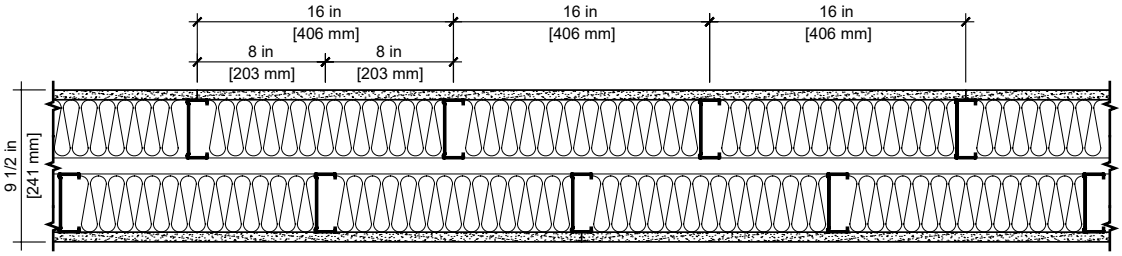
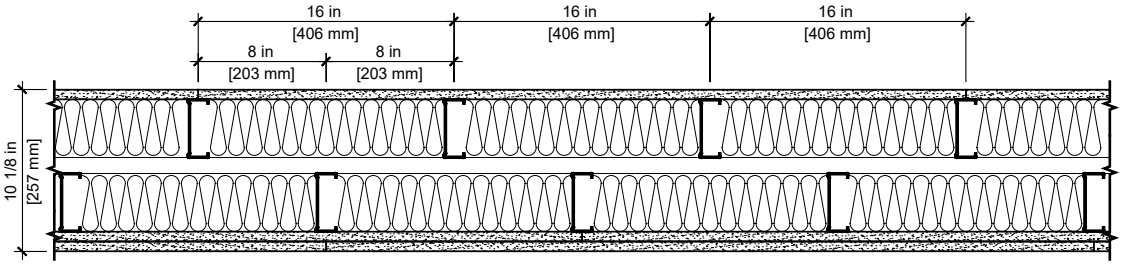
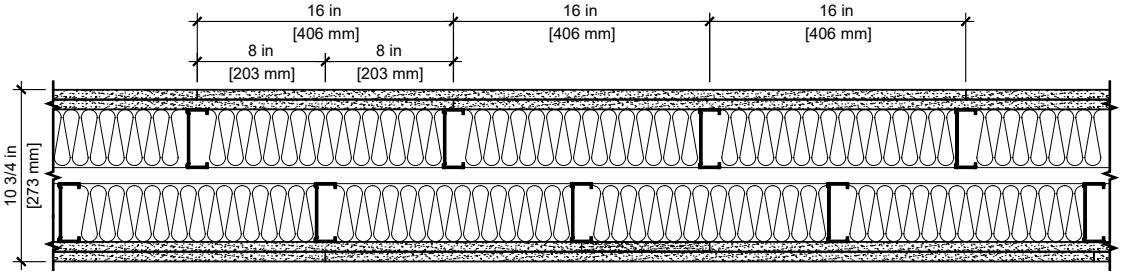
		System Thickness	STC ULIX™ EQ20	STC SCX EQ20
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	200 mm (7-7/8 in.)	59 USG-180122	62 USG-180117
MID	• 64 mm (2-1/2 in.) Steel Studs, Staggered • 25 mm (1 in.) Air Space • 64 mm (2-1/2 in.) Fiberglass Insulation (Both Sides)			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			



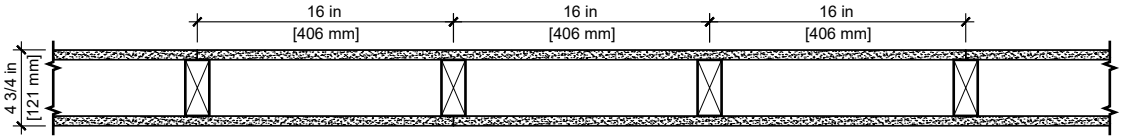
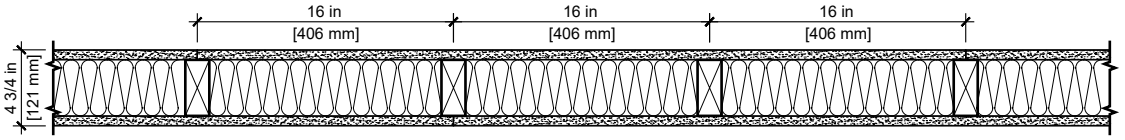
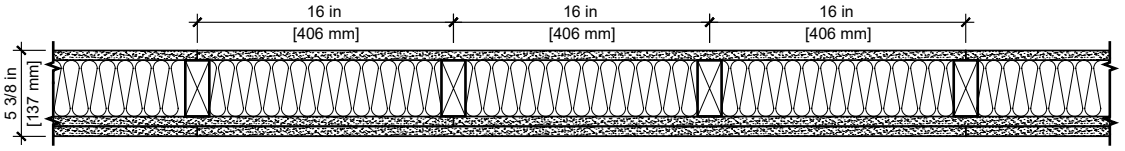
Two-Hour Fire Resistance Rating

		System Thickness	STC ULIX™ EQ20	STC SCX EQ20
SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	216 mm (8-1/2 in.)	63 USG-180124	64 USG-180118
MID	• 64 mm (2-1/2 in.) Steel Studs, Staggered • 25 mm (1 in.) Air Space • 64 mm (2-1/2 in.) Fiberglass Insulation (Both Sides)			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

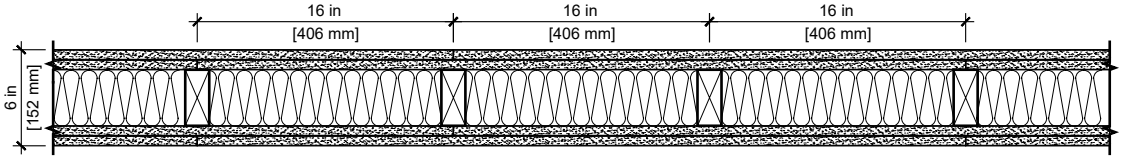
92 mm (3-5/8 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U493)

Partition Description	System Thickness	STC ULIX™ EQ25	STC SCX EQ25	STC ULIX™ EQ20	STC SCX EQ20
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs, Offset; Separate Tracks • 25 mm (1 in.) Air Space • 89 mm (3-1/2 in.) Fiberglass Insulation in Both Cavities SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	241 mm (9-1/2 in.)	**58** USG-160904	**61** USG-160912	**59** USG-160848	**60** USG-160901
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs, Offset; Separate Tracks • 25 mm (1 in.) Air Space • 89 mm (3-1/2 in.) Fiberglass Insulation in Both Cavities SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	257 mm (10-1/8 in.)	**62** USG-160905	**64** USG-160915	**62** USG-160849	**63** USG-160902
 **Two-Hour Fire Resistance Rating** SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 92 mm (3-5/8 in.) Steel Studs, Offset; Separate Tracks • 25 mm (1 in.) Air Space • 89 mm (3-1/2 in.) Fiberglass Insulation in Both Cavities SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	273 mm (10-3/4 in.)	**65** USG-160906	**66** USG-160918	**64** USG-160850	**65** USG-160903

2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U305)

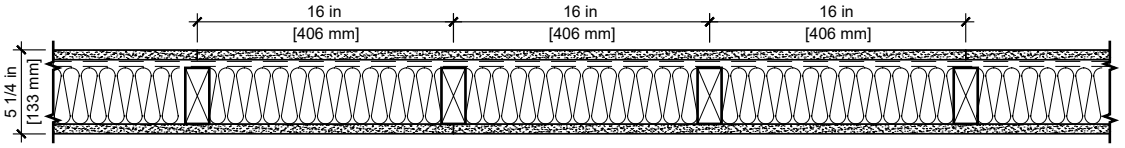
Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
			
One-Hour Fire Resistance Rating			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: 2x4 Wood Studs SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	121 mm (4-3/4 in.)	**33** USG-151234	**32** RAL-TL11-129
			
One-Hour Fire Resistance Rating			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	121 mm (4-3/4 in.)	**36** USG-151235	**34** RAL-TL11-130
			
One-Hour Fire Resistance Rating			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	137 mm (5-3/8 in.)	**38** USG-151236	**37** RAL-TL11-084

2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U301)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
			
Two-Hour Fire Resistance Rating			
SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	152 mm (6 in.)	**40** USG-151237	Not tested

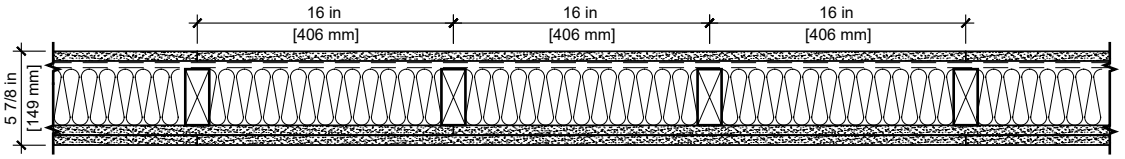
2X4 WOOD STUDS SPACED 406 mm (16 in.) OC AND RESILIENT CHANNEL (UL DESIGN U305)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood



One-Hour Fire Resistance Rating

		System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	133 mm (5-1/4 in.)	**47** USG-151240	**48** RAL-TL11-083
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

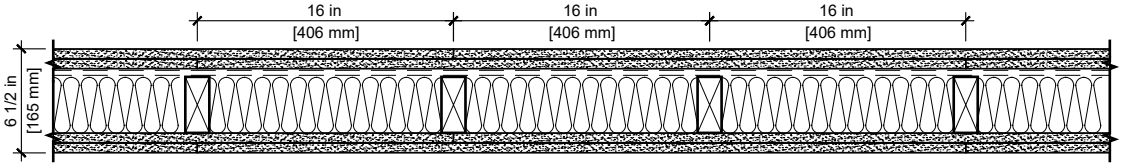


One-Hour Fire Resistance Rating

		System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	149 mm (5-7/8 in.)	**50** USG-151238	Not tested
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

2X4 WOOD STUDS SPACED 406 mm (16 in.) OC AND RESILIENT CHANNEL (UL DESIGN U301)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood

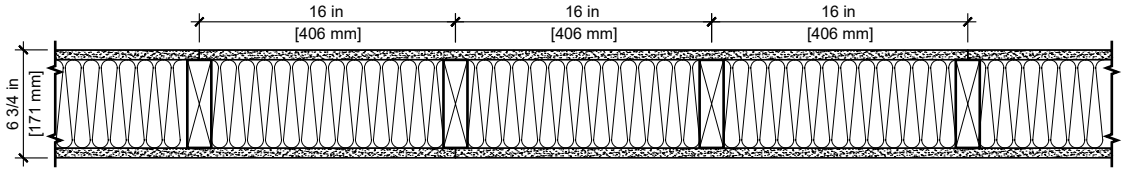


Two-Hour Fire Resistance Rating

		System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	165 mm (6-1/2 in.)	**54** RAL-TL15-063	Not tested
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

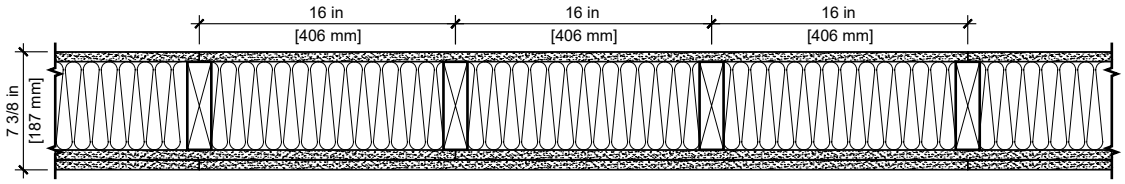
2X6 WOOD STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U305)

Partition Description	System Thickness	STC ULIX™ 2x6 Wood	STC SCX 2x6 Wood



One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	171 mm (6-3/4 in.)	36 USG-161208	35 USG-161214
MID	• 2x6 Wood Studs • 140 mm (5-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

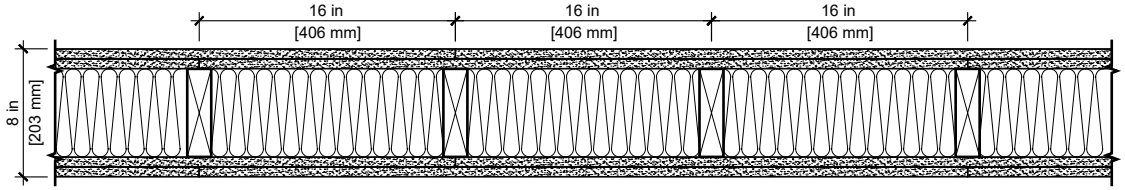


One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	187 mm (7-3/8 in.)	38 USG-161207	40 USG-161215
MID	• 2x6 Wood Studs • 140 mm (5-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

2X6 WOOD STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U301)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood

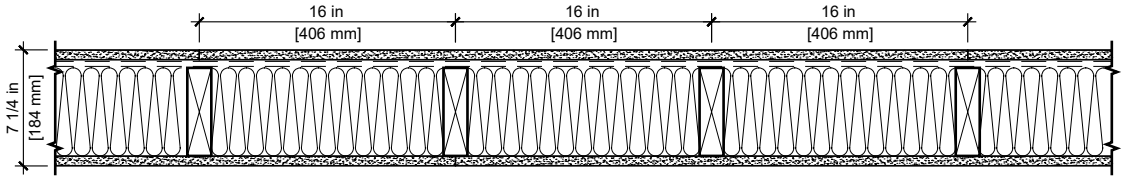


Two-Hour Fire Resistance Rating

SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	203 mm (8 in.)	40 USG-161206	42 USG-161216
MID	• 2x6 Wood Studs • 140 mm (5-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

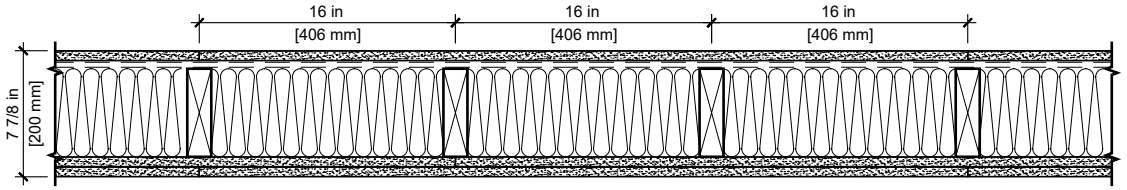
2X6 WOOD STUDS SPACED 406 mm (16 in.) OC AND RESILIENTCHANNEL (UL DESIGN U305)

Partition Description	System Thickness	STC ULIX™ 2x6 Wood	STC SCX 2x6 Wood



One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	184 mm (7-1/4 in.)	49 USG-161201	51 USG-161127
MID	• 2x6 Wood Studs • 140 mm (5-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

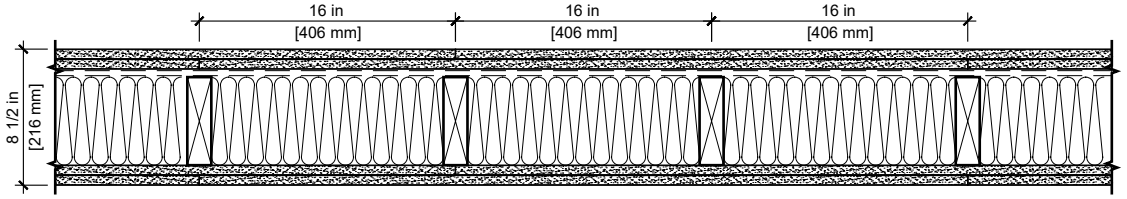


One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	200 mm (7-7/8 in.)	53 USG-161202	53 USG-161213
MID	• 2x6 Wood Studs • 140 mm (5-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

2X6 WOOD STUDS SPACED 406 mm (16 in.) OC AND RESILIENTCHANNEL (UL DESIGN U301)

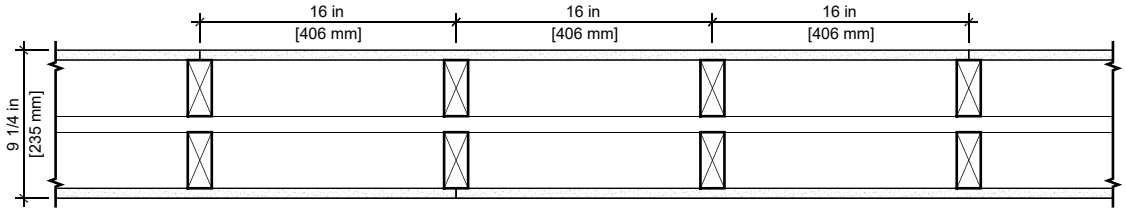
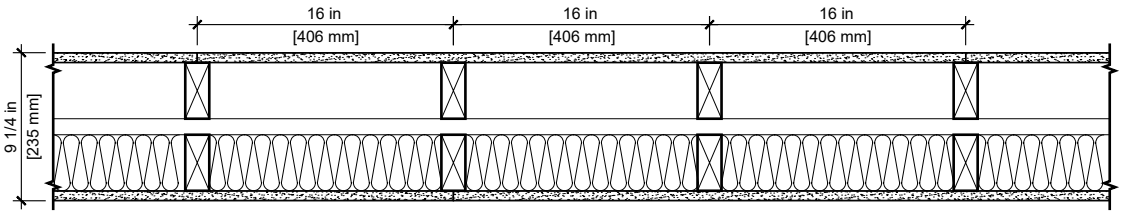
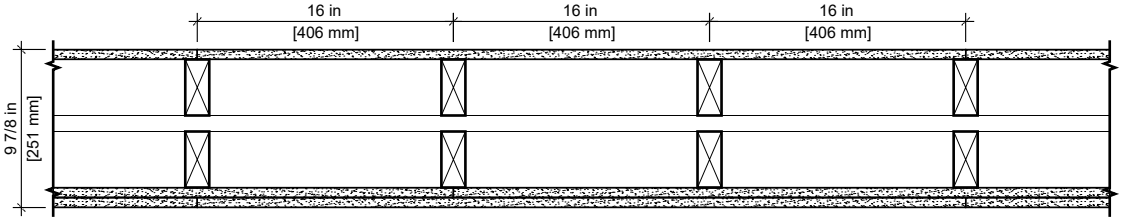
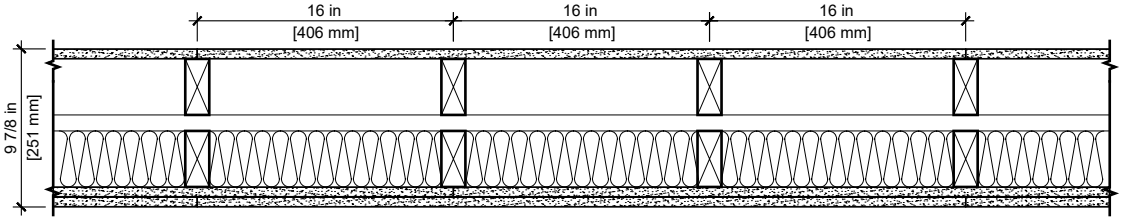
Partition Description	System Thickness	STC ULIX™ 2x6 Wood	STC SCX 2x6 Wood



Two-Hour Fire Resistance Rating

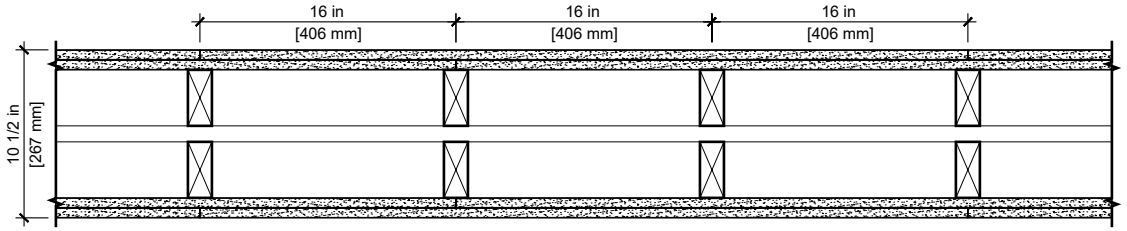
SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels, RC Deluxe®	216 mm (8-1/2 in.)	56 USG-161205	56 USG-161212
MID	• 2x6 Wood Studs • 140 mm (5-1/2 in.) Fiberglass Insulation			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (GA FILE NUMBERS WP 3370, WP 5512)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned, Separate 2x4 Plates (No Bracing) • 25 mm (1 in.) Air Space SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	235 mm (9-1/4 in.)	**40** USG-170909	**43** USG-171009
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned, Separate 2x4 Plates (No Bracing) • 25 mm (1 in.) Air Space • 89 mm (3-1/2 in.) Fiberglass Insulation (One Side) SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	235 mm (9-1/4 in.)	**51** USG-170918	**53** USG-171021
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned, Separate 2x4 Plates (No Bracing) • 25 mm (1 in.) Air Space SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	251 mm (9-7/8 in.)	**46** USG-170910	**49** USG-171012
 **One-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned, Separate 2x4 Plates (No Bracing) • 25 mm (1 in.) Air Space • 89 mm (3-1/2 in.) Fiberglass Insulation (One Side) SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	251 mm (9-7/8 in.)	**57** USG-170919	**60** USG-171017

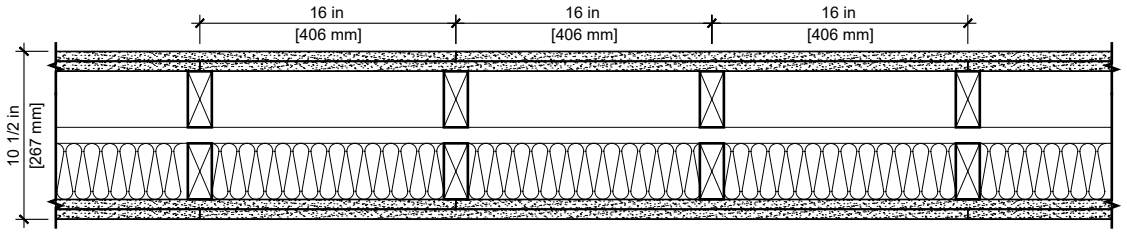
2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (GA FILE NUMBERS WP 3725, WP 5520)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood



Two-Hour Fire Resistance Rating

SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	267 mm (10-1/2 in.)	**51** USG-170911	**53** USG-171014
MID	• 2x4 Wood Studs, Aligned, Separate 2x4 Plates (No Bracing) • 25 mm (1 in.) Air Space			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

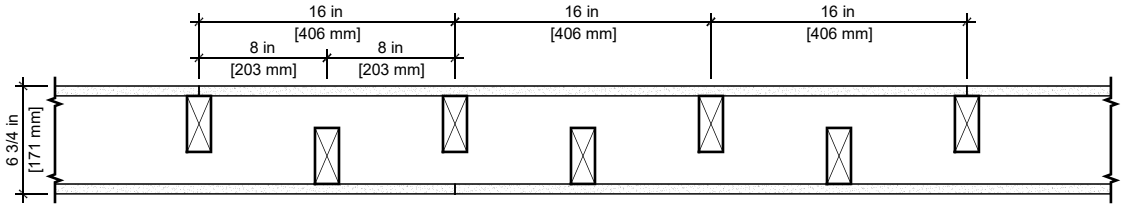


Two-Hour Fire Resistance Rating

SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	267 mm (10-1/2 in.)	**61** USG-170920	**61** USG-171024
MID	• 2x4 Wood Studs, Aligned, Separate 2x4 Plates (No Bracing) • 25 mm (1 in.) Air Space • 89 mm (3-1/2 in.) Fiberglass Insulation (One Side)			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

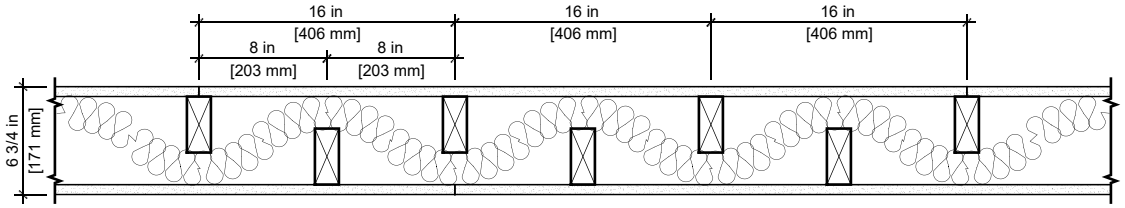
2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (GA FILE NUMBERS WP 3371, WP 5513)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood



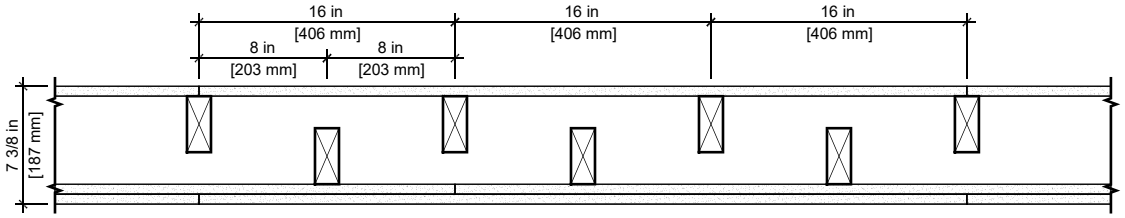
One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	171 mm (6-3/4 in.)	36 USG-171202	39 USG-171223
MID	2x4 Wood Studs, Staggered 203 mm (8 in.) OC on 2x6 Wood Plates			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			



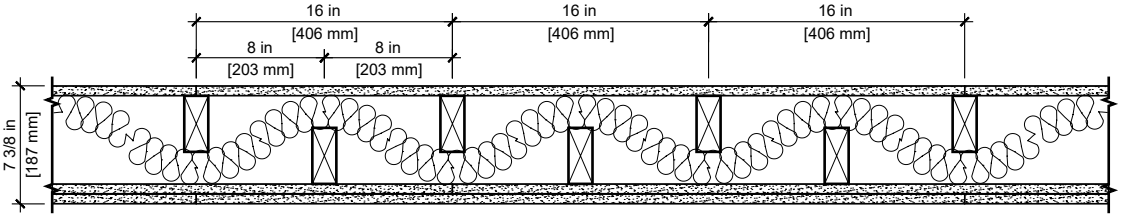
One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	171 mm (6-3/4 in.)	44 USG-171216	45 USG-171220
MID	• 2x4 Wood Studs, Staggered 203 mm (8 in.) OC on 2x6 Wood Plates • 89 mm (3-1/2 in.) Fiberglass Insulation Woven in Cavity			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			



One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	187 mm (7-3/8 in.)	42 USG-171214	44 USG-171224
MID	2x4 Wood Studs, Staggered 203 mm (8 in.) OC on 2x6 Wood Plates			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

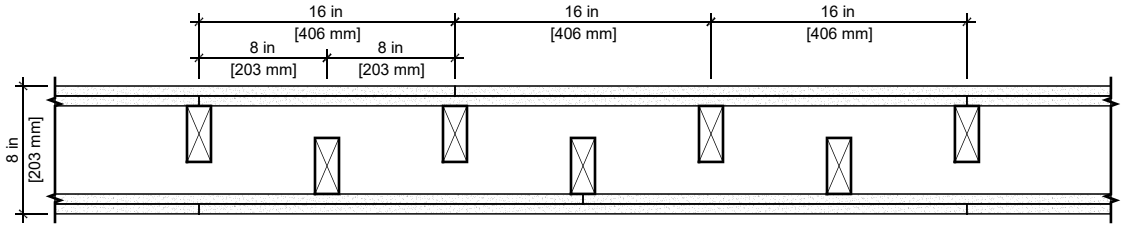


One-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	187 mm (7-3/8 in.)	49 USG-171217	50 USG-171221
MID	• 2x4 Wood Studs, Staggered 203 mm (8 in.) OC on 2x6 Wood Plates • 89 mm (3-1/2 in.) Fiberglass Insulation Woven in Cavity			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

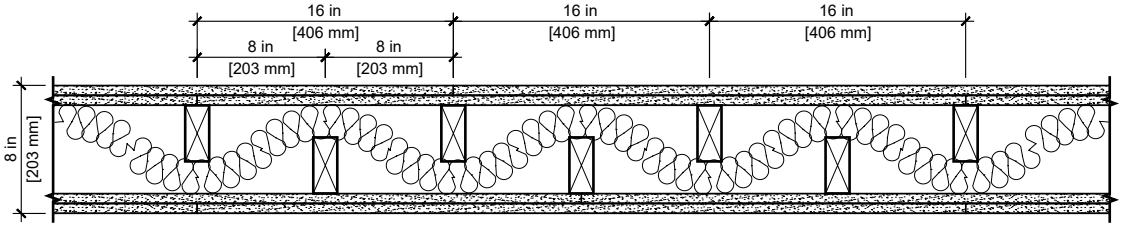
2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (GA FILE NUMBERS WP 3910, WP 5530)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood



Two-Hour Fire Resistance Rating

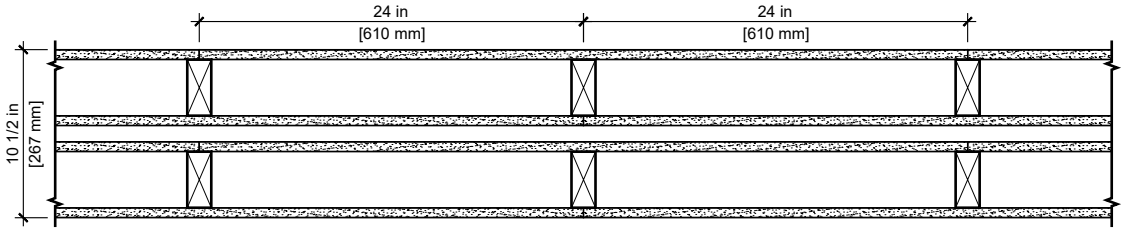
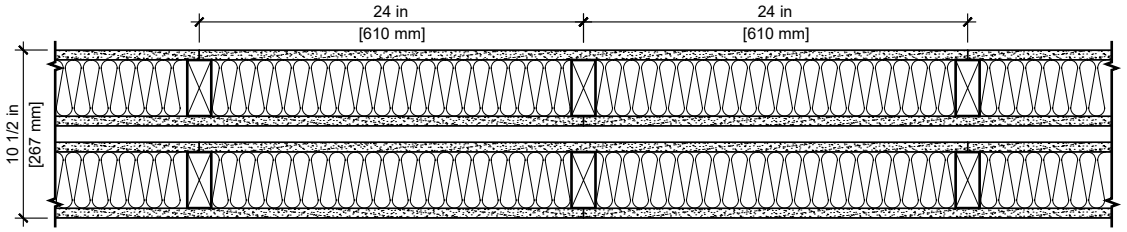
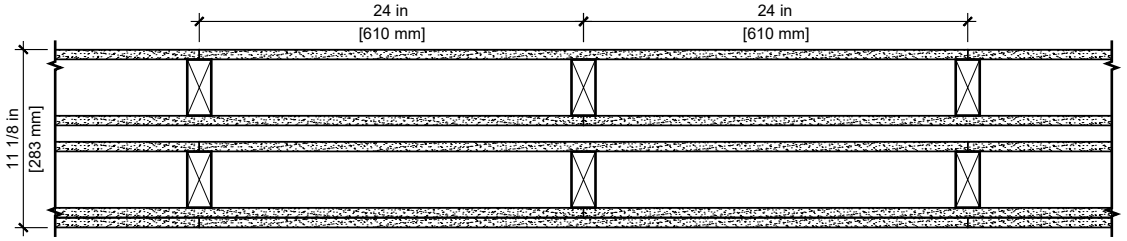
SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	203 mm (8 in.)	**46** USG-171215	**49** USG-171225
MID	2x4 Wood Studs, Staggered 203 mm (8 in.) OC on 2x6 Wood Plates			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			



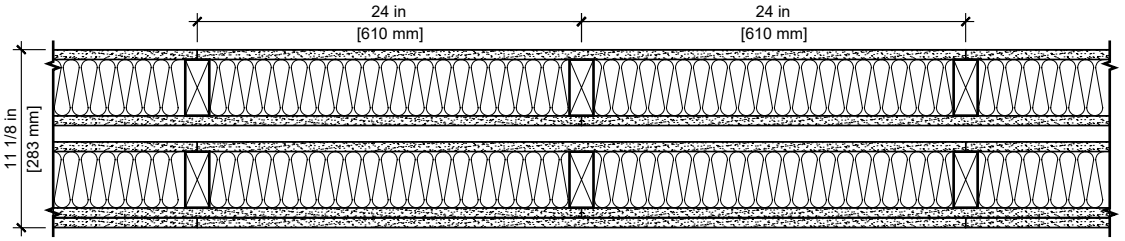
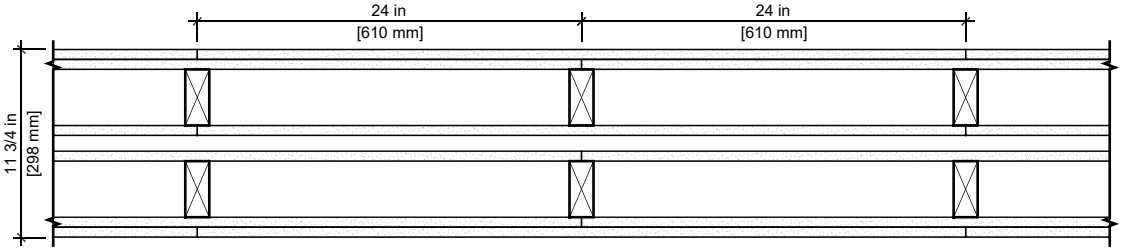
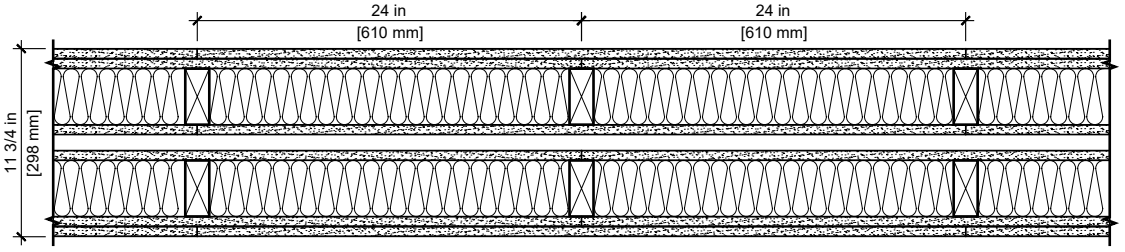
Two-Hour Fire Resistance Rating

SIDE A	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	203 mm (8 in.)	**52** USG-171218	**53** USG-171222
MID	• 2x4 Wood Studs, Staggered 203 mm (8 in.) OC on 2x6 Wood Plates • 89 mm (3-1/2 in.) Fiberglass Insulation Woven in Cavity			
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels			

2X4 WOOD STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U314)

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
			
Two-Hour Fire Resistance Rating (Double Wall Assembly Per NFPA 221)			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned (No Bracing) • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 25 mm (1 in.) Air Space • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 2x4 Wood Studs, Aligned (No Bracing) SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	267 mm (10-1/2 in.)	**46** USG-171043	**47** USG-171135
			
Two-Hour Fire Resistance Rating (Double Wall Assembly Per NFPA 221)			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned (No Bracing) • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 25 mm (1 in.) Air Space • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 2x4 Wood Studs, Aligned (No Bracing) • 89 mm (3-1/2 in.) Fiberglass Insulation (Both Sides) SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	267 mm (10-1/2 in.)	**53** USG-171101	**51** USG-171111
			
Two-Hour Fire Resistance Rating (Double Wall Assembly Per NFPA 221)			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned (No Bracing) • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 25 mm (1 in.) Air Space • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 2x4 Wood Studs, Aligned (No Bracing) SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	283 mm (11-1/8 in.)	**50** USG-171045	**51** USG-171136

2X4 WOOD STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U314) CONTINUED

Partition Description	System Thickness	STC ULIX™ 2x4 Wood	STC SCX 2x4 Wood
			
Two-Hour Fire Resistance Rating (Double Wall Assembly Per NFPA 221)			
SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned (No Bracing) • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 25 mm (1 in.) Air Space • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 2x4 Wood Studs, Aligned (No Bracing) • 89 mm (3-1/2 in.) Fiberglass Insulation (Both Sides) SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	283 mm (11-1/8 in.)	**57** USG-171104	**56** USG-171112
			
Two-Hour Fire Resistance Rating (Double Wall Assembly Per NFPA 221)			
SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned (No Bracing) • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 25 mm (1 in.) Air Space • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 2x4 Wood Studs, Aligned (No Bracing) SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	298 mm (11-3/4 in.)	**53** USG-171047	**55** USG-171201
			
Two-Hour Fire Resistance Rating (Double Wall Assembly Per NFPA 221)			
SIDE A: (2) Layers 15.9mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels MID: • 2x4 Wood Studs, Aligned (No Bracing) • (1) Layer 15.9mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 25 mm (1 in.) Air Space • (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels • 2x4 Wood Studs, Aligned (No Bracing) • 89 mm (3-1/2 in.) Fiberglass Insulation (Both Sides) SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand Type X Gypsum Panels	298 mm (11-3/4 in.)	**61** USG-171106	**60** USG-171133

SOUND TRANSMISSION REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA

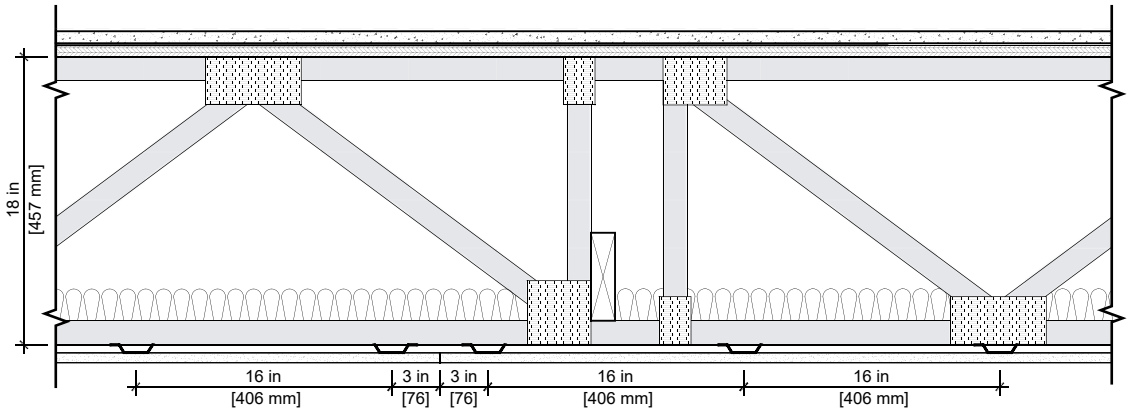
The National Building Code of Canada is one of the National Model Codes, which addresses the design and installation of materials that meet or exceed public health and safety goals.

Sound transmission requirements are in Part 5 Environmental Separations of the NBC. Protection from airborne noise requires that a dwelling unit be separated by assemblies (walls and floor-ceilings) with an apparent sound transmission class (ASTC) rating not less than 47, or with a sound transmission class (STC) rating of not less than 50 when tested in accordance with ASTM E90 "Laboratory Measurement of Airborne sound Transmission Loss of Building Partitions and Elements." Apparent sound transmission class (ASTC) takes into account both the sound transmitted through the assembly and around the assembly, i.e. direct and flanking sound transmission paths.

The NBC 2015 has no requirements for control of impact noise transmission, but impact insulation class (IIC) is being considered for inclusion in future editions. The recommended criterion is that floor-ceiling assemblies have an IIC of not less than 55, when tested in accordance with ASTM E492 "Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine."

457 mm (18 in.) OPEN-WEB WOOD TRUSS AND RESILIENT CHANNEL (UL DESIGNS L521, L550, L563)

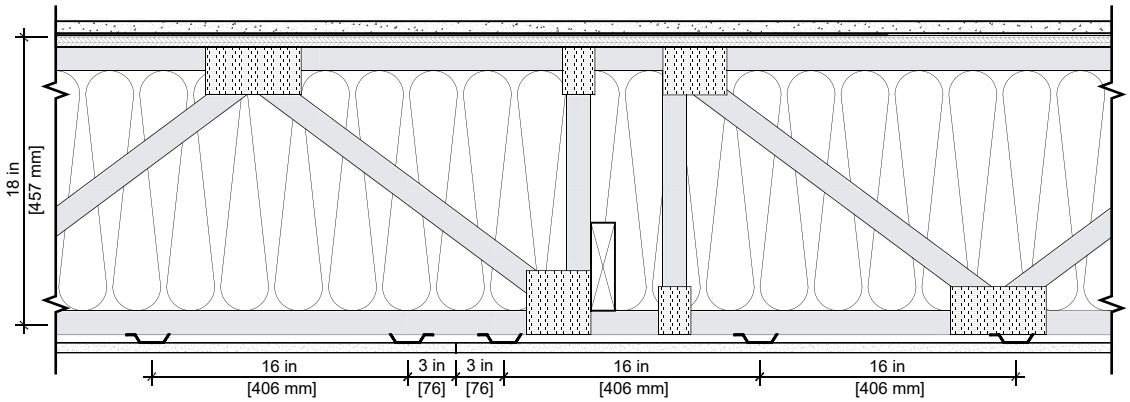
System	Floor Covering	ULIX™ STC	ULIX™ IIC



One-Hour Fire Resistance Rating

- 19 mm (3/4 in.) CGC Levelrock® Brand Underlayment
- 3 mm (1/8 in.) CGC Levelrock® Brand SAM-N12™ Sound Attenuation Mat
- 18mm (23/32 in.) Wood Structural Panel
- 457 mm (18 in.) Open-Web Wood Truss
- 89 mm (3-1/2 in.) Fiberglass Insulation
- RC Deluxe® Spacing 406 mm (16 in.) OC
- (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X

Floor Covering	ULIX™ STC	ULIX™ IIC
Bare Floor	**59** G9876.01	**48** G9876.01
Luxury Vinyl Tile	**58** G9876.02	**50** G9876.02
Sheet Vinyl	**58** G9876.03	**50** G9876.03
Engineered Hardwood	**59** G9876.04	**52** G9876.04
Ceramic Tile	**59** G9876.05	**51** G9876.05
Carpet and Pad	**59** G9876.06	**70** G9876.06



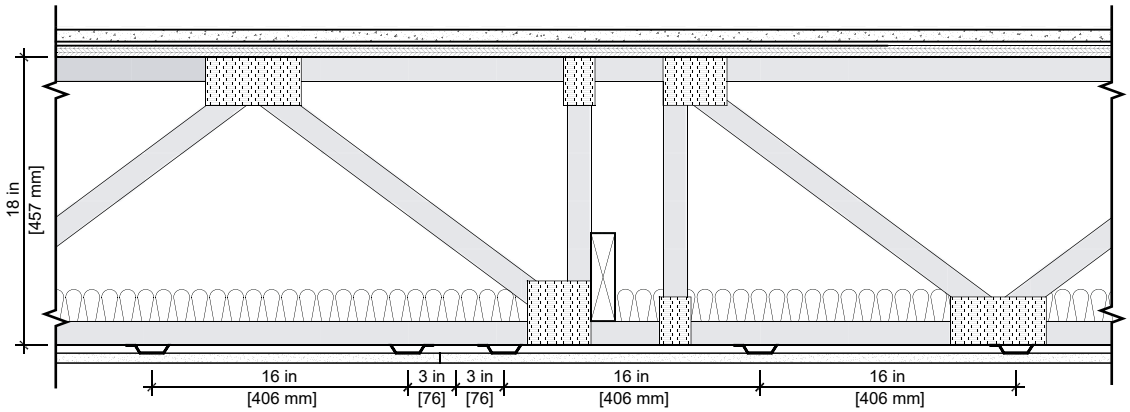
One-Hour Fire Resistance Rating

- 19 mm (3/4 in.) CGC Levelrock® Brand Underlayment
- 3 mm (1/8 in.) CGC Levelrock® Brand SAM-N12™ Sound Attenuation Mat
- 18 mm (23/32 in.) Wood Structural Panel
- 457 mm (18 in.) Open-Web Wood Truss
- 457 mm (18 in.) Blown-In Fiberglass Insulation
- RC Deluxe® Spaced 406 mm (16 in.) OC
- (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X

Floor Covering	ULIX™ STC	ULIX™ IIC
Bare Floor	**60** H5048.08	**50** H5048.08
Luxury Vinyl Tile	**61** H5048.09	**54** H5048.09
Sheet Vinyl	**60** H5048.10	**54** H5048.10
Engineered Hardwood	**60** H5048.11	**58** H5048.11
Ceramic Tile	**61** H5048.12	**53** H5048.12
Carpet and Pad	**60** H5048.13	**81** H5048.13

457 mm (18 in.) OPEN-WEB WOOD TRUSS AND RESILIENT CHANNEL (UL DESIGNS L521, L550, L563) CONTINUED

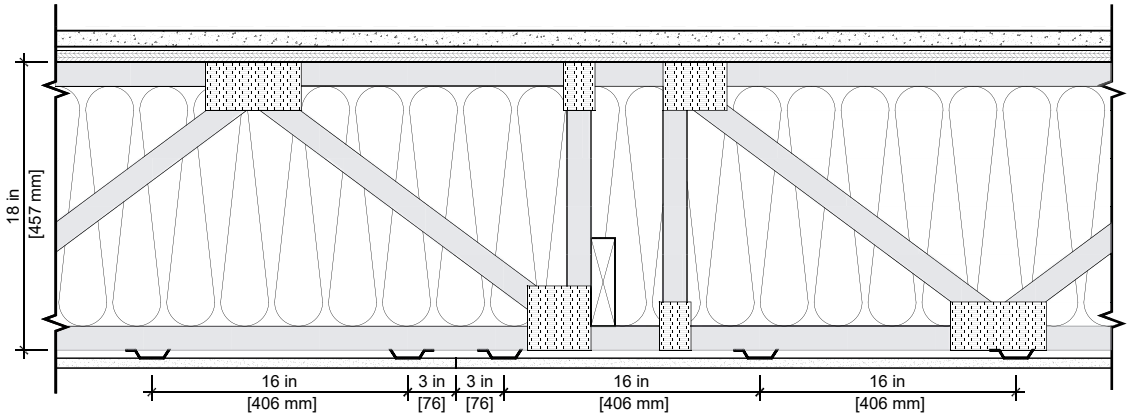
System	Floor Covering	ULIX™ STC	ULIX™ IIC



One-Hour Fire Resistance Rating

- 25.4 mm (1 in.) CGC Levelrock® Brand Underlayment
- 6.4 mm (1/4 in.) CGC Levelrock® Brand SAM-N25™ Sound Attenuation Mat
- 18 mm (23/32) in. Wood Structural Panel
- 457 mm (18 in.) Open-Web Wood Truss
- 89 mm (3-1/2) in. Fiberglass Insulation
- RC Deluxe® Spacing 406 mm (16 in.) OC
- (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X

Floor Covering	ULIX™ STC	ULIX™ IIC
Bare Floor	58 G9877.01	50 G9877.01
Luxury Vinyl Tile	58 G9877.02	50 G9877.02
Sheet Vinyl	58 G9877.03	51 G9877.03
Engineered Hardwood	58 G9877.04	51 G9877.04
Ceramic Tile	59 G9877.05	51 G9877.05
Carpet and Pad	58 G9877.06	69 G9877.06

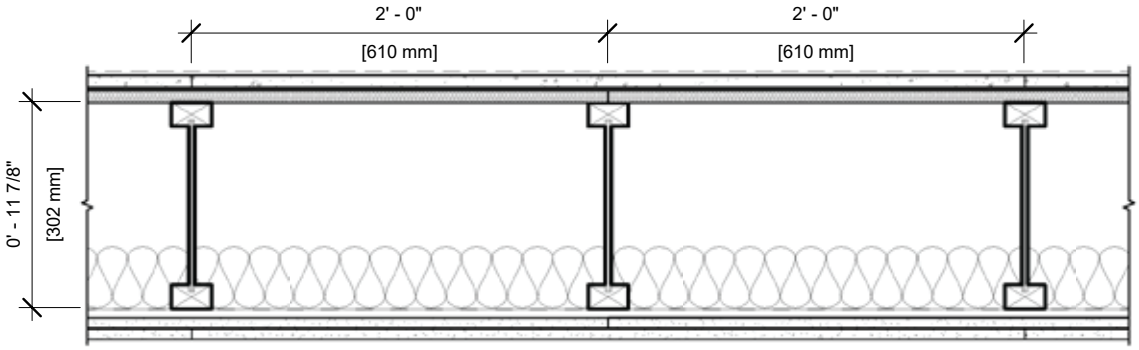


One-Hour Fire Resistance Rating

- 25.4 mm (1 in.) CGC Levelrock® Brand Underlayment
- 6.4 mm (1/4 in.) CGC Levelrock® Brand SAM-N25™ Sound Attenuation Mat
- 18 mm (23/32 in.) Wood Structural Panel
- 457 mm (18 in.) Open-Web Wood Truss
- 457 mm (18 in.) Blown-In Fiberglass Insulation
- RC Deluxe® Spacing 406 mm (16 in.) OC
- (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X

Floor Covering	ULIX™ STC	ULIX™ IIC
Bare Floor	61 G9878.01	54 G9878.01
Luxury Vinyl Tile	60 G9878.02	56 G9878.02
Sheet Vinyl	60 G9878.03	56 G9878.03
Engineered Hardwood	61 G9878.04	57 G9878.04
Ceramic Tile	61 G9878.05	57 G9878.05
Carpet and Pad	60 G9878.06	79 G9878.06

302 mm (11-7/8 in.) TJI (UL DESIGNS L570, M532)

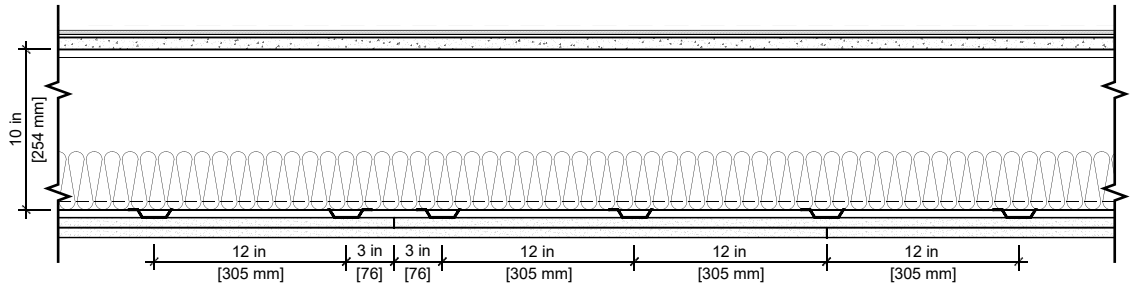


One-Hour Fire Resistance Rating

- 19 mm (3/4 in.) CGC Levelrock® Brand Underlayment
- 3 mm (1/8 in.) CGC Levelrock® Brand SAM-N12™ Sound Attenuation Mat
- 18 mm (23/32 in.) Wood Structural Panel
- 302 mm (11-7/8 in. "I"-Shaped Wood Joist
- 89 mm (3-1/2 in.) Fiberglass Insulation
- RC Deluxe® Spaced 406 mm (16 in.) OC
- (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X

System	Floor Covering	ULIX™ STC	ULIX™ IIC
	Bare Floor	59 H5048.01	47 H5048.01
	Luxury Vinyl Tile	59 H5048.02	53 H5048.02
	Sheet Vinyl	58 H5048.03	51 H5048.03
	Engineered Hardwood	59 H5048.04	57 H5048.04
	Ceramic Tile	59 H5048.05	51 H5048.05
	Carpet and Pad	59 H5048.06	78 H5048.06
	Laminate	59 H5048.07	56 H5048.07

254 mm (10 in.) DEEP STEEL JOIST AND RESILIENT CHANNEL (UL DESIGN G557)



Two-Hour Fire Resistance Rating

- 6.4 mm (1/4 in.) CGC Fiberock® Brand Tile Backerboard
- Pliteq GenieMat® RST line of flat, resilient, reduced sound transmission mats
- 19 mm (3/4 in.) CGC Structural Panels
- 254 mm (10 in.) Deep Steel Joist
- 89 mm (3-1/2 in.) Fiberglass Insulation
- RC Deluxe® Spacing 305 mm (12 in.) OC
- (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode® X

	Sheet Vinyl (with RST02)	57 H0466.14-113-11	50 H0466.14-113-11
	Luxury Vinyl Tile (with RST05)	58 H0466.10-113-11	50 H0466.10-113-11
	Cushioned Sheet Vinyl (with RST02)	57 H0466.12-113-11	50 H0466.12-113-11
	Engineered Hardwood (with RST05)	59 H0466.08-113-11	50 H0466.08-113-11

CGC SHEETROCK® BRAND ULTRALIGHT PANELS FIRECODE 30® (UL TYPE FC30)

CGC SHEETROCK® BRAND ULTRALIGHT PANELS FIRECODE 30® (UL TYPE FC30)

CGC Sheetrock® Brand UltraLight Panels Firecode 30® are ideal for interior applications where 15.9 mm (5/8 in.) Type X panels are not required. These panels have been formulated to achieve comparable strength and mechanical performance characteristics as standard 15.9 mm (5/8 in.) CGC Sheetrock® Brand Firecode® Gypsum Panels at a significantly reduced weight.

- Meet or exceed ASTM C1396 for 15.9 mm (5/8 in.) non-Type X
- Underwriters Laboratories Inc. (UL) Classification and ULC Listed as to fire resistance —30-minute single-layer and 1-hour double-layer
- Offer comparable strength, sag and impact resistance to standard 15.9 mm (5/8 in.) Type X
- Up to 97.3% recycled content (regionally available)
- Achieved GREENGUARD Gold Certification and qualify as a low VOC emitting material (meets CA 01350)

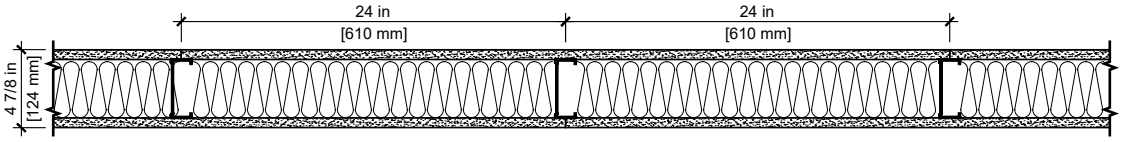
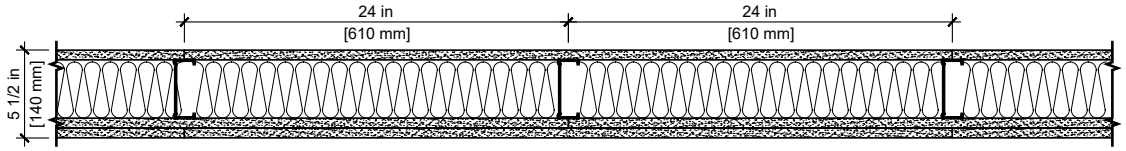
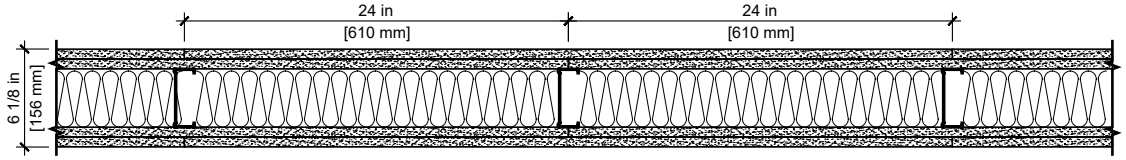
CGC Sheetrock® Brand UltraLight Panels Firecode 30® (UL Type FC30) are ideal for use in:

- Commercial or residential applications where 15.9 mm (5/8 in.) Type X panels are not required
- New or repair and remodel construction
- Non-fired-rated steel- or wood-framed wall and ceiling assemblies
- Single-layer wood- or steel-framed 30-minute fire-rated wall assemblies
- Double-layer gypsum panel steel-framed 1-hour fire-rated wall assemblies
- Any UL/ULC design where UL/ULC Type FC30 panels are listed

ACOUSTICAL PERFORMANCE

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC (UL DESIGN U407)

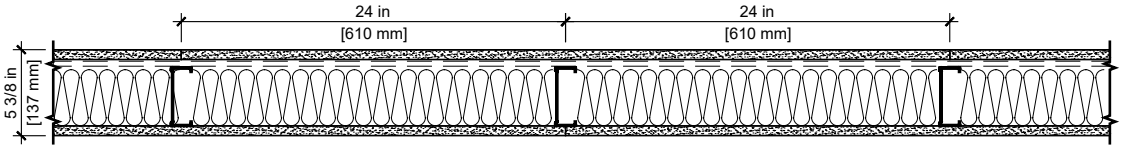
Product	UL Type Designation
CGCSheetrock® Brand UltraLight Panels Firecode 30®	FC30

Partition Description	System Thickness	STC FC30 EQ25	STC FC30 EQ20
 **1/2-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30® MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®	124 mm (4-7/8 in.)	**47** USG-170144	**46** USG-170203
 **1/2-Hour Fire Resistance Rating** SIDE A: (1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30® MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®	140 mm (5-1/2 in.)	**49** RAL-TL11-128*	Not tested
 **One-Hour Fire Resistance Rating** SIDE A: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30® MID: • 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation SIDE B: (2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®	156 mm (6-1/8 in.)	**52** RAL-TL11-080*	Not tested

* Sound tests were conducted on traditional gauge studs. Performance on EQ studs will meet or exceed listed STC rating.

92 mm (3-5/8 in.) STEEL STUDS SPACED 610 mm (24 in.) OC AND RESILIENT CHANNEL (UL DESIGN U407)

Partition Description	System Thickness	STC FC30 EQ25	STC FC30 EQ20

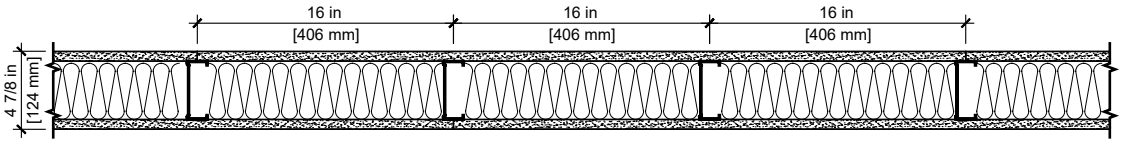


1/2-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®, RC Deluxe®	137 mm (5-3/8 in.)	**50** USG-170201	**47** RAL-TL12-204
MID	• 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®			

92 mm (3-5/8 in.) STEEL STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U407)

Partition Description	System Thickness	STC FC30 EQ25	STC FC30 EQ20

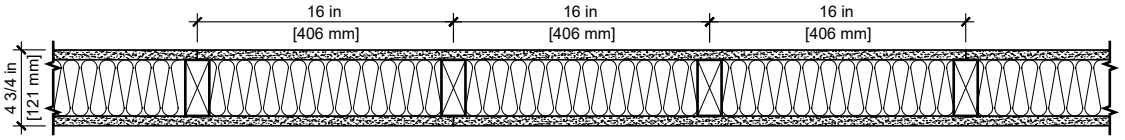


1/2-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®	124 mm (4-7/8 in.)	**44** USG-170202	**39** USG-170204
MID	• 92 mm (3-5/8 in.) Steel Studs • 89 mm (3-1/2 in.) Fiberglass Insulation			
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®			

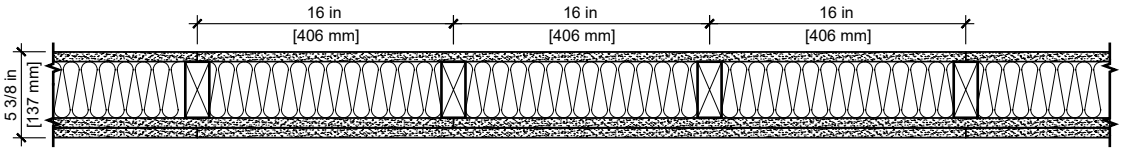
2X4 WOOD STUDS SPACED 406 mm (16 in.) OC (UL DESIGN U407)

Partition Description	System Thickness	STC FC30 2x4 Wood



1/2-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®	121 mm (4-3/4 in.)	**33** RAL-TL11-086
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation		
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®		

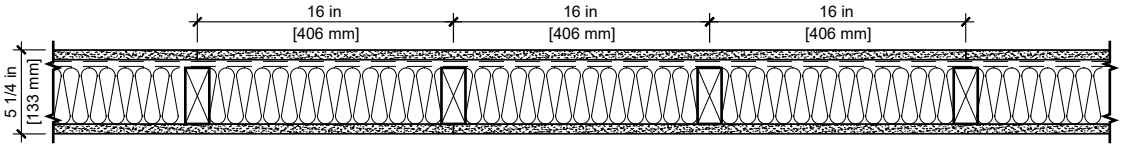


1/2-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®	137 mm (5-3/8 in.)	**35** RAL-TL11-087
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation		
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®		

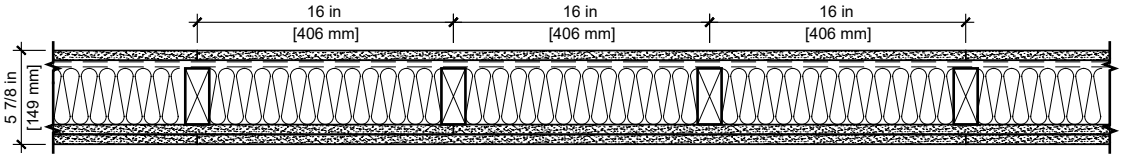
2X4 WOOD STUDS SPACED 406 mm (16 in.) OC AND RESILIENT CHANNEL (UL DESIGN U407)

Partition Description	System Thickness	STC FC30 2x4 Wood



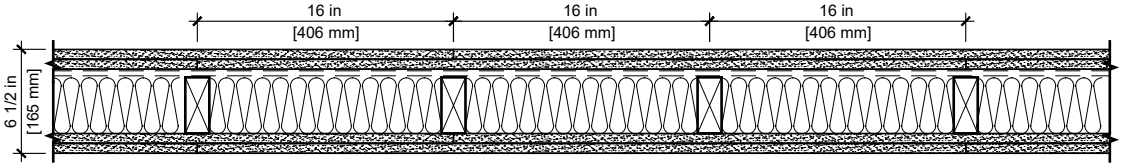
1/2-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®, RC Deluxe®	133 mm (5-1/4 in.)	**45** RAL-TL11-085
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation		
SIDE B	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®		



1/2-Hour Fire Resistance Rating

SIDE A	(1) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®, RC Deluxe®	149 mm (5-7/8 in.)	**49** RAL-TL11-131
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation		
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®		



One-Hour Fire Resistance Rating

SIDE A	(2) Layer 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®, RC Deluxe®	165 mm (6-1/2 in.)	**52** RAL-TL11-132
MID	• 2x4 Wood Studs • 89 mm (3-1/2 in.) Fiberglass Insulation		
SIDE B	(2) Layers 15.9 mm (5/8 in.) CGC Sheetrock® Brand UltraLight Panels Firecode 30®		

CONTACT INFORMATION

Manufactured by
CGC Inc.
350 Burnhamthorpe Rd. W., 5th Floor
Mississauga, ON L5B 3J1

PRODUCT INFORMATION

See cgcinc.com for the most up-to-date product information.

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

CUSTOMER SERVICE

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SAFETY FIRST!

Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read Safety Data Sheets and related literature on products before specification and/or installation.

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