

Frequently Asked Questions

Area Separation Fire Walls

We answer the top questions about area separation fire walls, an essential safety feature of multifamily wood-frame construction.

What are the fireblocking requirements in an area separation wall, and what materials can I use?

Fireblocking, installed to resist the free passage of flame to other areas of the building through connected spaces, is required at all ceiling and floor lines between floors and at the ceiling line separating the top floor and the attic. Horizontal fireblocking is required every 10 feet on center.

Option 1: Leave a 1" air space on either side of the area separation wall, and insert shaftliner panels inside the air space at each floor line and again at the line separating the top floor at the attic and horizontally every 10 feet on center.

Option 2: Friction fit mineral wool insulation into the minimum $\frac{3}{4}$ " air space at the floor and ceiling lines and 10 feet on center horizontally.

Page 99: 2-hour fire wall at floor intersection

Page 104: 2-hour fire wall at stepped roof intersection

Page 110: 2-hour fire wall blocking plan

How are doors installed in an area separation wall?

National Gypsum developed a method to install doors using supplemental metal bracing attached to the H-stud framing of the fire wall system.

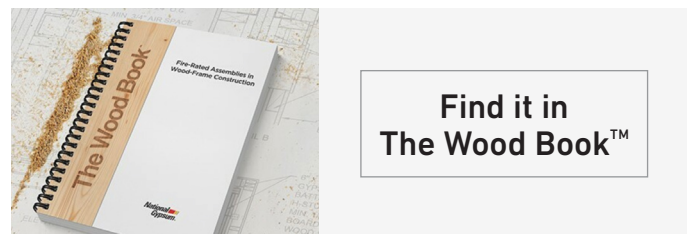
Pages 111–114: 2-hour area separation fire wall

Pages 129–132: 3-hour area separation walls

Is there a 3-hour area separation wall?

National Gypsum developed a 3-hour UL design, UL 454, for multifamily podium construction, which requires 3-hour fire walls.

Pages 117–128: Details showing the 3-hour fire wall



Can I put plumbing and mechanical inside the flanking walls of an area separation fire wall?

Yes, the steel H-stud gypsum shaftliner part of the assembly maintains the fire separation and isn't compromised by plumbing and mechanicals in the flanking walls.

Pages 88–134: UL fire-rated area separation wall designs

How can incidental holes that occur during construction of the area separation wall be repaired?

Penetrations through area separation walls should be avoided as much as possible. If holes, penetrations, or other damage should occur to the shaftliner panels, a recommended patch method can be found in The Wood Book.

Page 115: 2-Hour Fire Wall Hole Repair

Can shaftliner panels be replaced if there is significant damage to the entire panel?

Yes. The Wood Book outlines the process of installing replacement shaftliner pieces between existing H-stud framing supplemented with additional layers of gypsum board attached over the H-Studs.

Page 116: 2 Hour Fire Wall Shaftliner Replacement

Additional Resources for Area Separation Wall Construction

Recommended products, expert assistance and technical resources for use in area separation walls and more.

Products

High-performance gypsum board provided by National Gypsum combines fire resistance, mold/mildew and moisture resistance, and ease of installation. Recommended products include:

- **Gold Bond® Shaftliner XP®**
- **Gold Bond® eXP® Shaftliner**
- **Gold Bond® XP® Fire-Shield C™ Gypsum Board**
- **Gold Bond® eXP® Interior Extreme® Fire-Shield C™ Gypsum Board**

Excellence Across The Board®

National Gypsum's **1-800-NATIONAL®** Construction Services team provides technical insights and expert assistance for your projects. Have a unique situation or application involving gypsum-based materials, finishing products or cement board? A free phone call from anywhere in the U.S. or Canada puts you directly in touch with National Gypsum's technical information experts.

For architects and specifiers, a regional construction design manager is available as a resource for product knowledge and selection through every phase of your project. From expertise on building products in fire- and sound-rated assemblies to education on industry building requirements, we have a representative available. Connect now at nationalgypsum.com/expert-connection.

Technical Resources

Technical guides available from National Gypsum give architects and contractors a head start on designs:



THE WOOD BOOK™

A comprehensive guide to fire-rated assemblies in wood-frame construction.



THE SOUNDBOOK®

Provides technical details for acoustical assemblies and drawings of real-world sound-rated designs.



NGC CONSTRUCTION GUIDE™

Comprehensive information about products and systems provided by National Gypsum and the technical information needed to use them.



THE PURPLE BOOK®

The leading resource for fire-rated assemblies in commercial construction.

Select **BIM AND CAD DETAILS** are also available.



SCAN FOR
TECHNICAL
RESOURCES

Technical Information: **1-800-NATIONAL** or nationalgypsum.com

National Gypsum Company is the exclusive service provider for products manufactured by Gold Bond Building Products, LLC.

The color Purple is a registered trademark of Gold Bond Building Products, LLC.

