



# Area Separation Wall System

## Fire-Rated Protection for Multi-Family Living

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## California’s Proposition 65 Warning

California’s Safe Drinking Water and Toxic Enforcement Act of 1986 – commonly referred to as Proposition 65 (“Prop 65”) (27 Cal. Code Reg. § 25600, et seq.) – has recently changed, requiring manufacturers to provide a warning based on its knowledge about the presence of one or more of the almost 900 listed chemicals which are known to the State of California to cause cancer and birth defects, or other reproductive harm. With a few exceptions, manufacturers operating in the state of California as well as those entities who distribute, import, package, and/or supply products into the State of California are now required provide a “clear and reasonable” warning to consumers that

their products may contain one or more of these listed chemicals or compounds. The complete list is available at [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

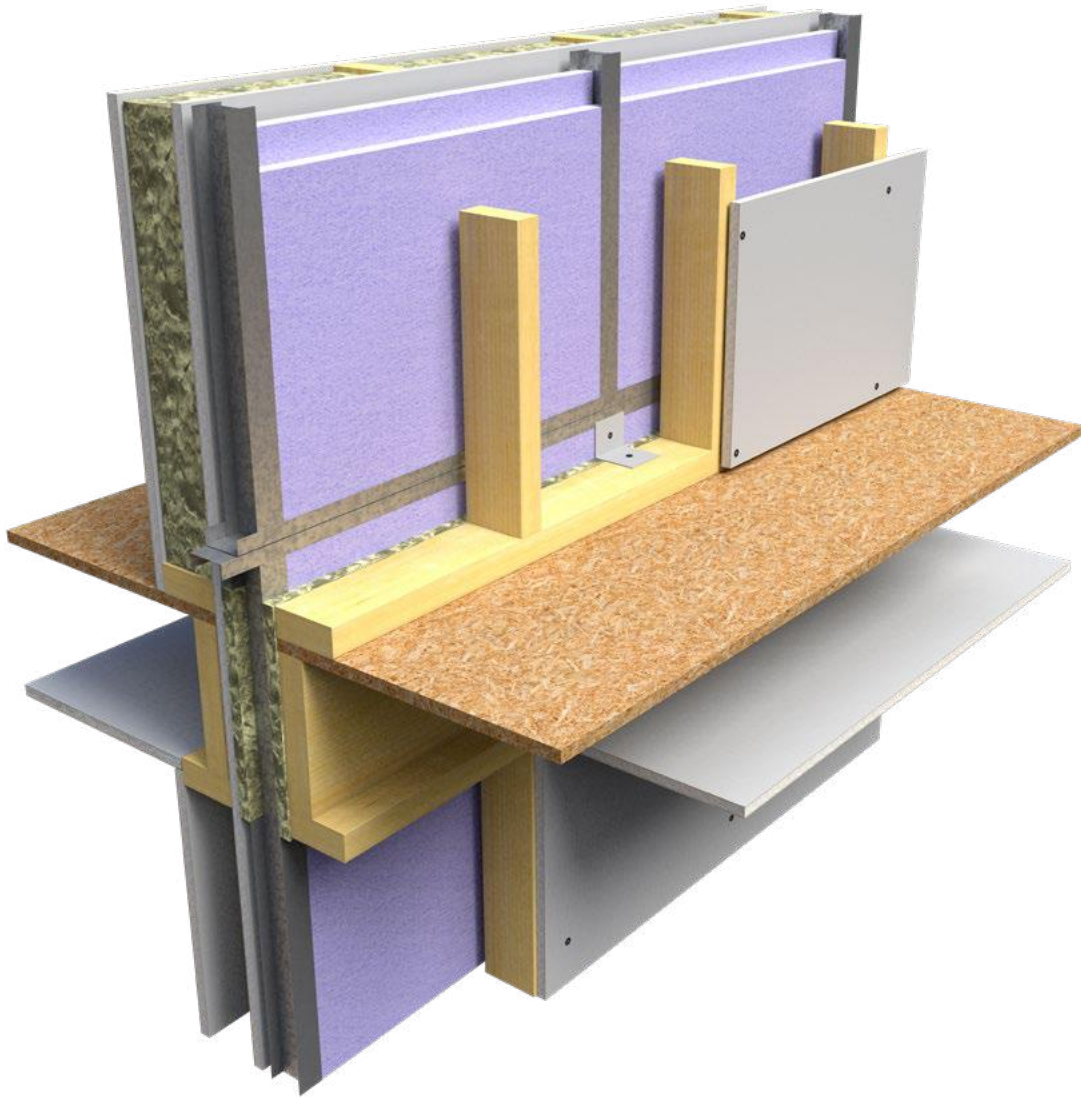
In compliance with the new requirements, we are notifying each of our customers that CEMCO products contain Nickel (metallic) and/or other chemicals listed which are known to the State of California to cause cancer and birth defects or other reproductive harm. Safety data sheets from our major suppliers are available from CEMCO on our website at [www.cemcosteel.com](http://www.cemcosteel.com).

# Introduction

## CEMCO<sup>®</sup> Area Separation Wall System

CEMCO<sup>®</sup> area separation wall components are the foundation for 2-hour and 3-hour vertical assemblies used in apartments, condominiums, and townhomes for fire-protection of individual units. Designed for use in these wood-framed structures, these fire-rated walls use two layers of 1" thick gypsum shaft wall liners installed

between H-Studs spaced at 24" on-center encapsulated with 2" C-Runners on top and bottom. Aluminum burn clips are attached to the H-Stud wall system to the wood-framed walls on both sides (see image below). This system allows the wall exposed to fire to collapse inward on the fire side protecting the adjacent unit.



### AISI, ASTM, & Code Standards

- ASTM A653/653M – Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- ASTM A924/924M – Specification for General Requirements for Sheet Steel, Metallic-Coated by the Hot-Dip Process.
- ASTM A1003/1003M – Specification for Steel Sheet, Carbon, Metallic and Nonmetallic-Coated for Cold-Formed Framing Members.
- ASTM C645 – Standard Specification for Nonstructural Steel Framing Members.
- IBC: 2015, 2018, 2021, 2024
- CBC: 2016, 2019, 2022
- AISI: S100, S220

### Technical Support and Resources

- Contact CEMCO's Technical Services Department at 800-775-2362 or email at [technicalservices@cemcosteel.com](mailto:technicalservices@cemcosteel.com).
- Visit [www.cemcosteel.com](http://www.cemcosteel.com) for all catalogs, specification sheets, typical details, and acoustical/UL reports.

### LEED v4 for Building & Design Construction

- MR Prerequisite: Construction and Demolition Waste Management Planning.
- MR Credit: Construction and Demolition Waste Management.
- MR Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials, Option 2.
- MR Credit: Building Product Disclosure and Optimization – Material Ingredients, Option 1.
- MR Credit: Building Life-Cycle Impact Reduction, Option 4.

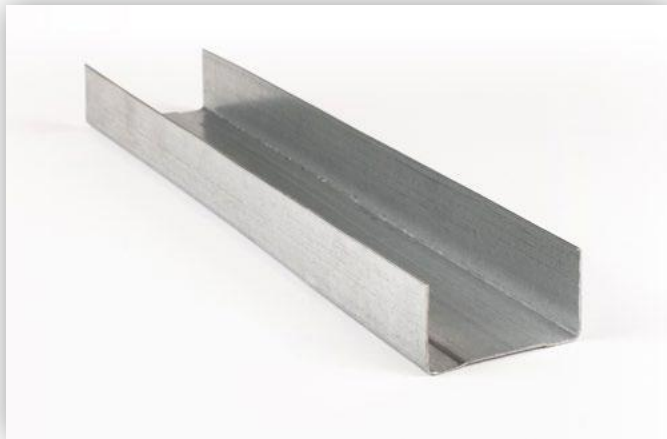
### MR Credit 4.1/4.2 – Recycled Content

- Total Recycled Content: 36.9%
- Post-Consumer: 19.8%
- Pre-Consumer: 14.4%

### H-Stud

CEMCO's H-Studs are manufactured from 18 mil and 33 mil G40 hot-dipped galvanized steel with a 2" inside dimension to readily accept standard 1' shaft wall liner panels. G60 or G90 available upon special request plus additional cost.

Product Code	Minimum Delivered Thickness	Design Thickness	Width (Outside Dimension)	Available Lengths
25H200	0.0179	0.0188	2-1/8"	8', 10', 12'
20H200	0.0329	0.0346	2-1/8"	8', 10', 12'



### C-Runner

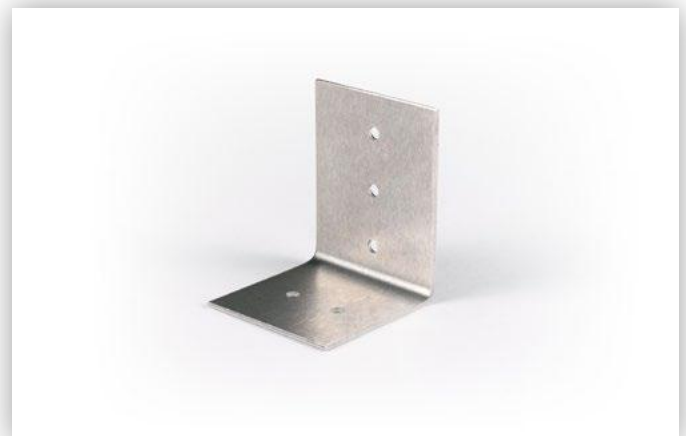
CEMCO's C-Runners are manufactured from 18 mil and 33 mil G40 hot dipped galvanized steel with an inside dimension of 2-1/8" and are used as both top and bottom tracks. When installing second (and up) levels, C-Runners MUST be used when transitioning from one level to the other(s). G60 or G90 available upon special request plus additional cost.

Product Code	Minimum Delivered Thickness	Design Thickness	Width (Inside Dimension)	Available Lengths
25C200	0.0179	0.0188	2-1/8"	10'
20C200	0.0329	0.0346	2-1/8"	10'

### Aluminum Burn Clips

Available in .049" or .063" thicknesses, these burn clips are used to secure the H-Stud wall to the wood-framed party walls. Check the specified UL fire-rated assembly to determine which thickness must be used.

Product Code	Minimum Delivered Thickness	Design Thickness	Width (Outside Dimension)	Available Lengths
BREAKCLIPS	0.063"	2"	2"	3-1/2"

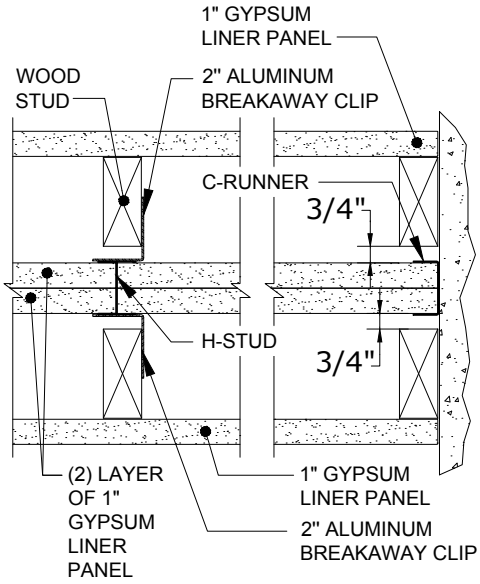


### UL Assemblies

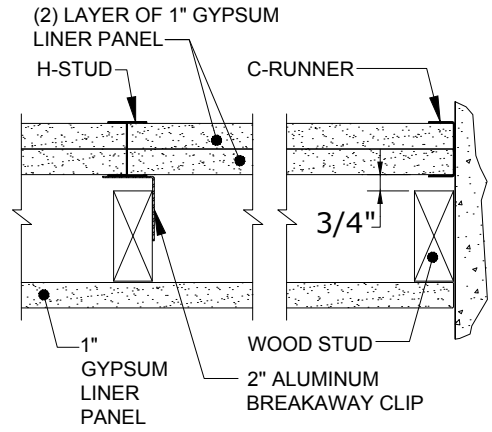
Fire-Rating	UL Assembly	Flange (in)	Max Height (ft)
2-Hour	U336	1-3/8	66
	U347	1-3/8	66
	U373	1-3/8	44
	U388	1-3/8	66
	V411	1-3/8	N/A
	U366	1-3/8	70
	U375	1-3/8	33

Fire-Rating	UL Assembly	Flange (in)	Max Height (ft)
3-Hour	W454	1-3/8	70
	W467	1-3/8	70
	V348	1-3/8	66

2 HOUR NON-BEARING AREA SEPARATION WALL ASSEMBLY



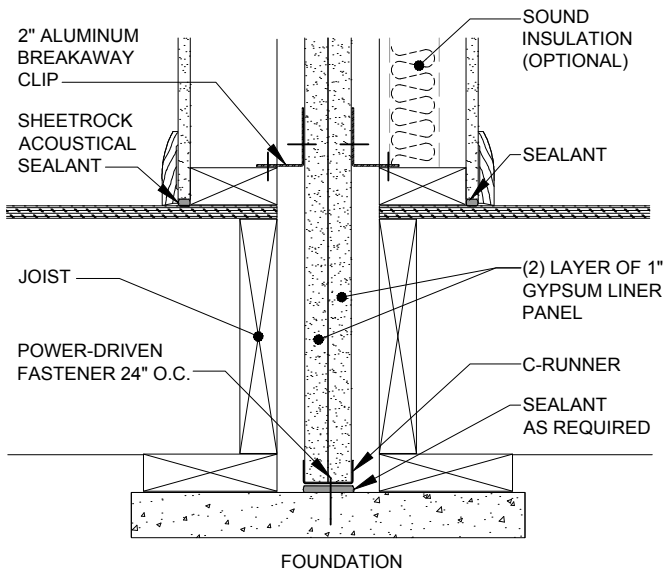
2 HOUR NON-BEARING AREA SEPARATION WALL ASSEMBLY



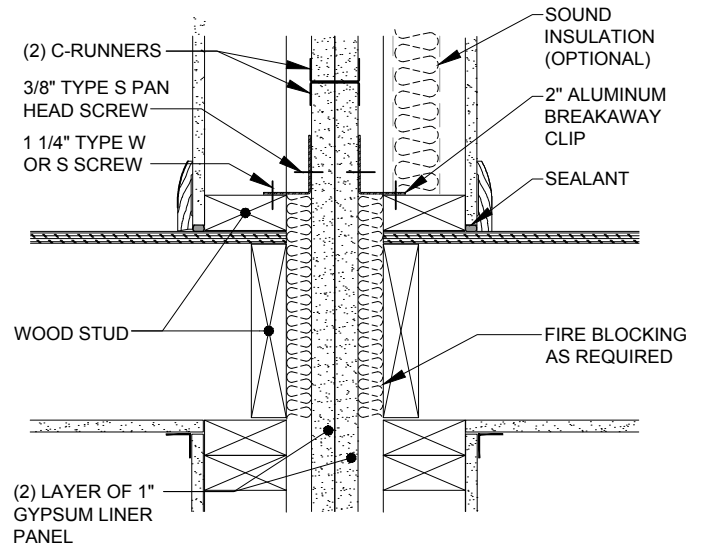
# Area Separation Wall System

## H-Stud Assembly Details

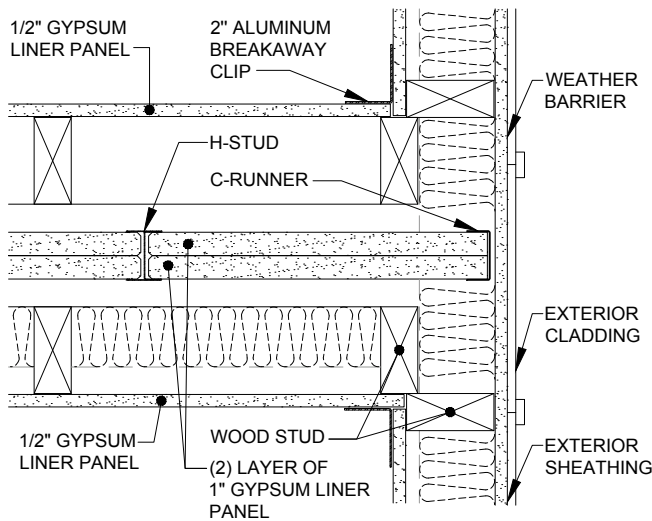
### FOUNDATION



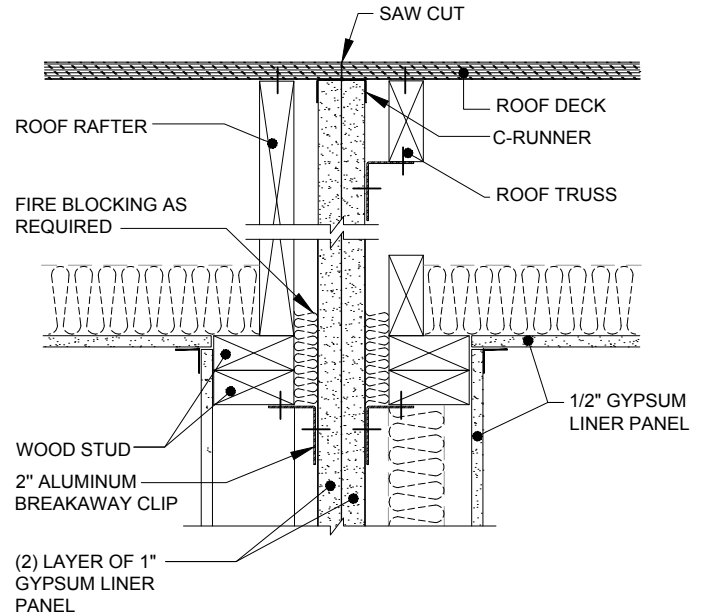
### INTERMEDIATE FLOOR



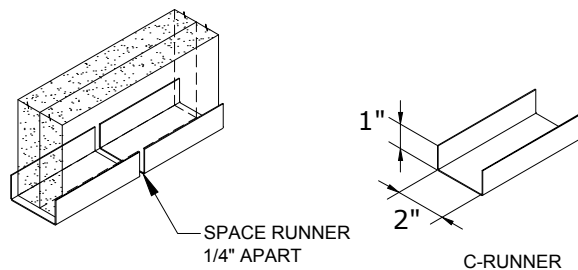
### EXTERIOR WALL INTERSECTION (AS REQUIRED)



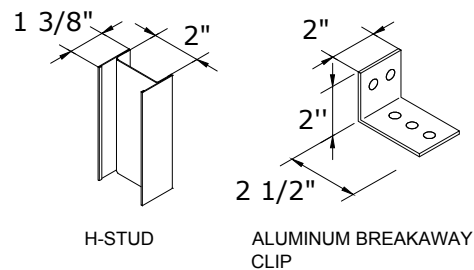
### INTERSECTION AT ROOF



### RUNNER INSTALLATION



### COMPONENTS



## Installation Instructions

- 1. Foundation:** Install C-Runner on floor using fasteners required by specific fire-rated assembly or AOR's recommendations. Acoustical caulk (1/4" bead) can be applied under the C-Runner if required.
- 2. First Floor:** Install H-Studs and 2 layers of 1" shaft liner panels, then install another H-Stud encapsulating the shaft liner panes. Repeat process until wall is complete. Cap top-of-wall with C-Runners, fastening the corners of the C-Runners at all corners with minimum 3/8" Type S screws.
- 3. Intermediate Floors:** Attach C-runner for next row of panels to the C-runner below with end joints staggered at least 12". Fasten the C-runners together with double 3/8" screws at ends and 24" on-center. Attach all H-studs and vertical C-runners to adjacent framing with aluminum breakaway clips. Clips attaching H-studs and vertical C-runners to adjacent framing on both sides require attachment to the H-stud and C-runner with one 3/8" Type S screw. Clips attaching H-studs and vertical C-runners to adjacent framing on only one side and with exterior exposure on the other side require attachment to the H-stud and C-runner with two 3/8" Type S screws. Attachment to the adjacent framing is with one 1-1/4" Type W or Type S screw. Locate horizontal C-runner joint within 2' of the intermediate floor. Install fire blocking between the solid wall system and adjacent framing at floor lines, bottom of truss line, and any other locations required by the applicable code.
- 4. Roof:** Cut the liner panels and H-studs to roof pitch and length as necessary to follow the roof pitch. At roof, cap liner panels and H-studs with C-runner. Attach all H-studs to adjacent framing with aluminum breakaway clips. Clips attaching H-studs and vertical C-runners to adjacent framing on only one side and with exterior exposure on the other side require attachment to each vertical framing member with two 3/8" Type S screws.







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