

Thirsty

THURSDAY

QUENCH YOUR THIRST FOR **TECHNICAL KNOW-HOW**

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NGA
NATIONAL GLASS ASSOCIATION

QUENCH YOUR THIRST FOR
TECHNICAL KNOW-HOW

Your Fire-Rated Questions, *Answered*



Thomas Zaremba
Roetzel & Andress
NGA Code Consultant

NGA UPCOMING EVENTS

NGA Glass Conference: Milwaukee
Aug 6-8, 2024

GlassBuild America
Sept 30 – Oct 2, 2024

Glazing Executives Forum
Sept 30, 2024

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NATIONAL GLASS ASSOCIATION

NGA Glass Conference: Milwaukee

Aug 6-8, 2024
The Trade Hotel



[glass.org/
nga-glass-conference-milwaukee-2024](https://glass.org/nga-glass-conference-milwaukee-2024)

[sponsorship](mailto:sara@glass.org) > sara@glass.org



Exhibitor Registration is Open

Attendee Registration Opens **July 16**



**IT'S
DALLAS
HERE**

**THE BIGGEST GLASS
& FENESTRATION
EVENT OF THE YEAR**



GlassBuild 
A M E R I C A 

THE GLASS, WINDOW & DOOR EXPO

9.30 - 10.02

DALLAS, TEXAS

KAY BAILEY HUTCHISON
CONVENTION CENTER

GLASSBUILD.COM

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Compartmentation

Why?



György Dr. Veres • 3rd+
Fire Engineer at Flamella Ltd.
1w • 

+ Follow ...

Fire roared through an apartment complex's carport overnight Sunday in Studio City, damaging five vehicles.

There, firefighters responded to find five cars engulfed in flames. The fire had extended to the apartment complex, though firefighters were able to contain it and the building was not believed to have sustained damage.

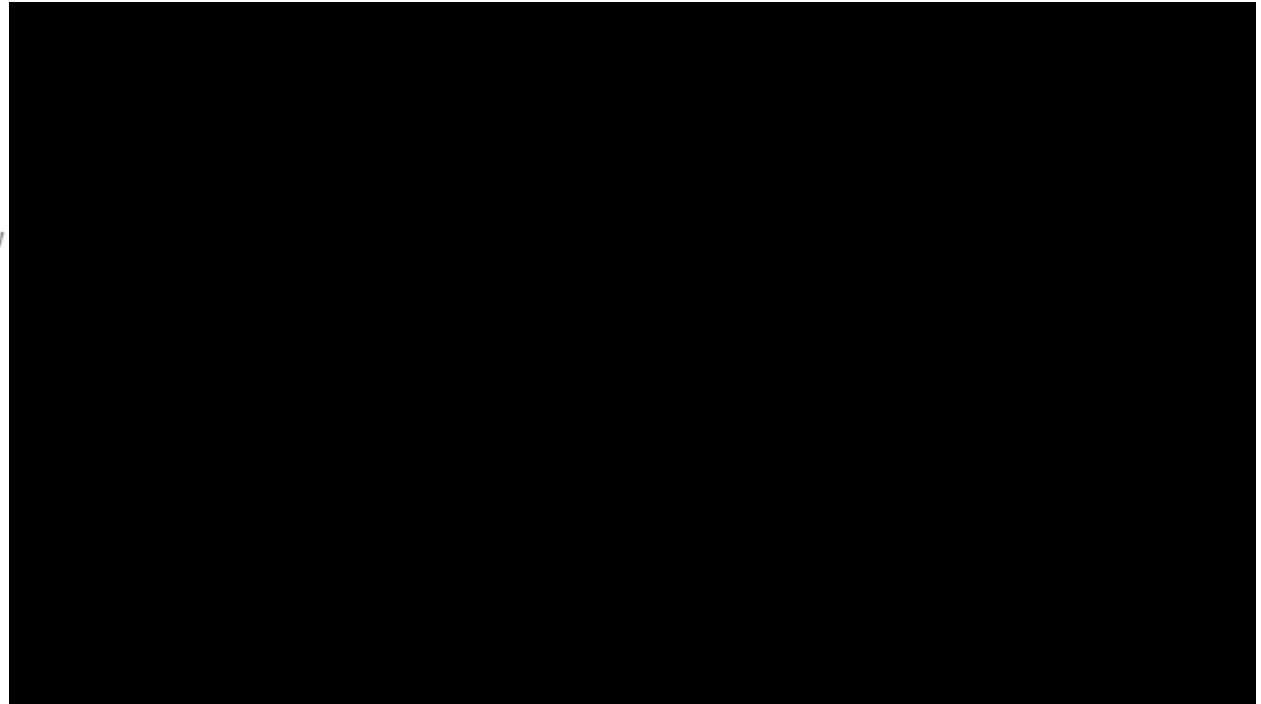
"I just woke up to the sound of crackling and a scream and I looked out my window and saw red. I grabbed my cat, woke everyone up, and got out, and looked: my car was on fire. All the cars in our little parking spot were on fire. I don't know what happened and it grew really fast," said one witness.

The cause of the fire remained under investigation.

[CBS News]

NFPA 556 identifies major fire safety concerns associated with passenger road vehicles and provides guidance on methods and tools to decrease the fire hazard or fire risk associated with such vehicles, thereby increasing the likelihood that occupants will have time to exit or be rescued in case of fire.

Author's LinkedIn Post



Compartmentation

- Would sprinklers in this garage have prevented this?
 - Flammables/accelerants can overwhelm sprinklers
- Apartments undamaged – fast fire service and compartmentation
- Passive fire-resistance construction materials – rooms, occupancies, floor to floor, exterior walls
- Most important? **Means of Egress**

What is the “means of egress” in a building?

- IBC: “a continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.”
- “exit access” – “that portion of the means of egress system that leads from any occupied portion of an occupied building or structure to an exit.”
 - arguably most important. Why?
 - “exit” highly regulated, clearly marked, illuminated and “protected”
 - “exit access” not marked, not illuminated, not protected EXCEPT (i)

**TABLE 1020.2
CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system
H-1, H-2, H-3	All	Not Permitted	1 ^c
H-4, H-5	Greater than 30	Not Permitted	1 ^c
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5 ^c /1 ^d
I-2 ^a	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1 ^{b, c}
I-4	All	1	0

A= Assembly (1 through 4)
 B= Business
 E= Educational
 F= Factory and Industrial (F1 and F2)
 H= High Hazard (1 through 5)
 I= Institutional (1 through 4)
 M= Mercantile
 R= Residential (1 through 4)
 S= Storage (1 and 2)
 U- Utility and Miscellaneous

Exit

That portion of a *means of egress* system between the *exit access* and the *exit discharge* or *public way*. Exit components include exterior exit doors at the *level of exit discharge*, *interior exit stairways* and *ramps*, *exit passageways*, *exterior exit stairways* and *ramps* and *horizontal exits*.

Note: “horizontal exits” are not to be confused with “horizontal assemblies” The latter are fire-resistant rated floors or ceilings. The former are refuge areas constructed of fire-resistant rated materials usually constructed for people unable to use the building’s egress system due to, for example, an inability to use stairs.

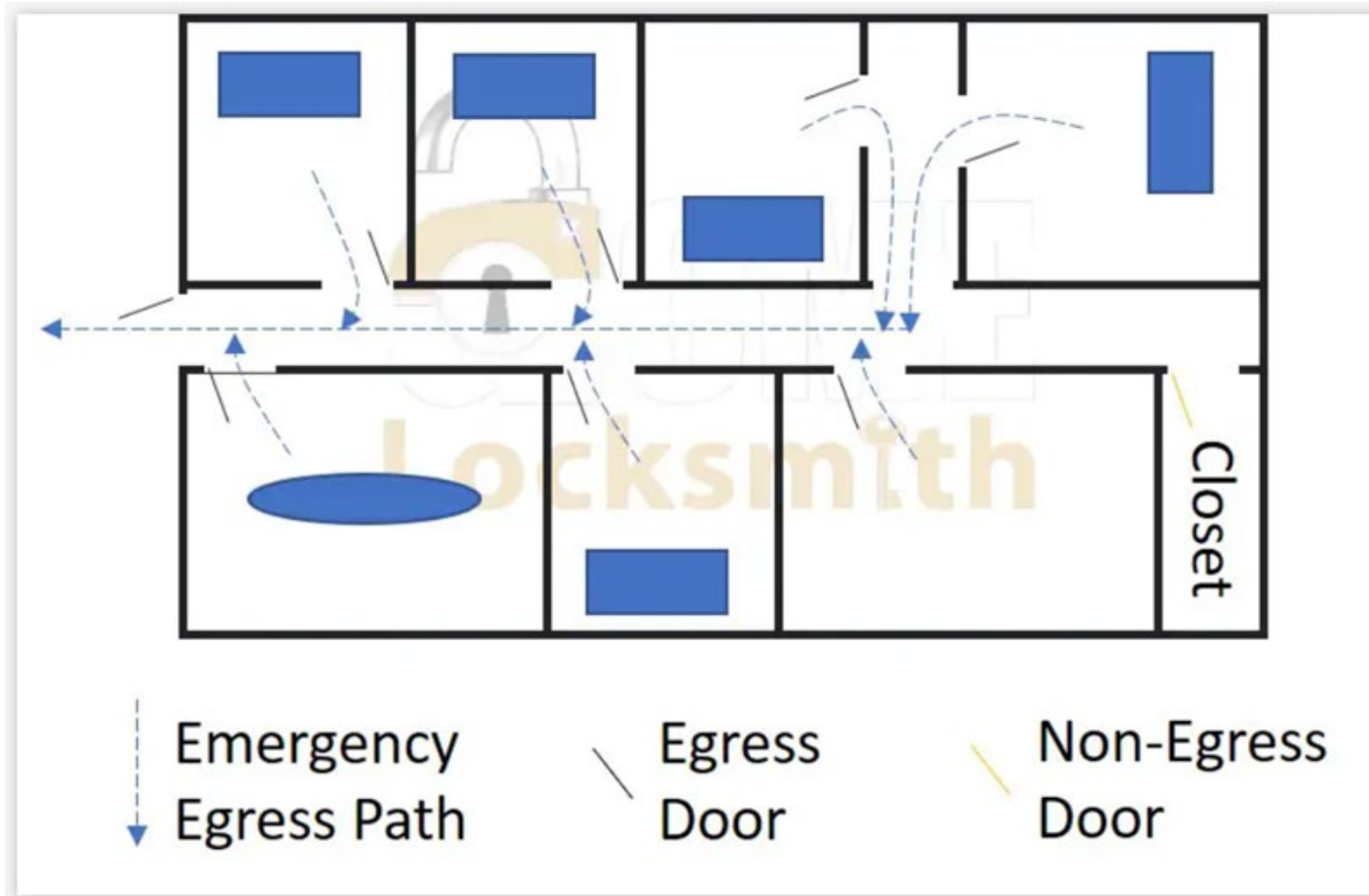
- Highly regulated (signage, size, travel distance, lighting, width, number of exits and exit access doors, appearance, etc.)
- Protected, enclosed and usually 2-hour fire-resistant construction material

Exit Discharge: “That portion of a means of egress system between the termination of an exit and the public way.”

Egress Doors - What are they?

- Egress doors are the doors used by building occupants to enter the means of egress.
- They include doors from any occupied portion of a building into either an exit access corridor or into an exit.

Egress Doors - What are they?



ALL EGRESS DOORS MUST BE SWINGING type doors - side hinged, pivot or balanced.

IBC Section 1010.1.2

Are there exceptions?

1. *Private garages*, office areas, factory and storage areas with an *occupant load* of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care *facilities*.
4. Doors within or serving a single *dwelling unit* in Groups R-2 and R-3.
5. In other than Group H occupancies, revolving doors complying with Section 1010.3.1.
6. In other than Group H occupancies, special purpose horizontal sliding, accordion or folding door assemblies complying with Section 1010.3.3.
7. *Power-operated* doors in accordance with Section 1010.3.2.
8. Doors serving a bathroom within an individual *dwelling unit* or *sleeping unit* in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a *means of egress* from spaces with an *occupant load* of 10 or less.

What about Glass in Egress Doors?

1. All glazing would have to be listed and labeled, passing fire testing either to NFPA 252 or UL 10B (usually in applications 1 ½ hour or less) or both ASTM E113 and NFPA 252 or UL 10B (usually in applications longer than 1 ½ hours).
2. In most applications where the fire-resistance rating of the associated wall is 1 ½ hours or less, the glazing in the Fire Door would be permitted in the maximum size tested in the listing. However, in applications greater than 1 ½ hours, the size of the fire protection rated glazing in the Fire Door would be limited to 100 square inches. In applications longer than 1 ½ hours, fire-resistance rated glazing would be permitted to the maximum size tested in its listing.

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