



# NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

## AGENDA

### NFPA Technical Committee on Means of Egress (BLD/SAF-MEA) NFPA 101 & NFPA 5000 First Draft Meeting (A2026)

July 11 – July 12, 2024  
8 a.m. (CT)

Embassy Suites by Hilton Kansas City Plaza  
Kansas City, Missouri

To join the meeting, please contact [jyee@nfpa.org](mailto:jyee@nfpa.org)

1. **Call to order.** Michael Crowley.
2. **Introductions.** See committee roster attached.
3. **Chair report.** Michael Crowley.
4. **Staff liaison report.** Gregory Harrington.
  - a. First Draft meeting process.
  - b. Reference publication/extract updates.
  - c. Copyright/extracts from external publications.
5. **Previous meeting minutes.** July 13-14, 2022, NFPA 101/5000 Second Draft remote meeting. See attached.
6. **Correlating committee direction for 2027 editions** – BLD-AAC/SAF-AAC Pre-First Draft meeting minutes (attached).
  - a. Minutes items 8.a.i and 8.a.ii re. separation of vertical buildings.
  - b. Minutes items 8.b.i and 8.b.ii re. fire alarm notification signal terminology (visual/visible).
7. **Task group reports.**
  - a. Cable guards. Waymon Jackson.
  - b. Area of refuge two-way communication systems. Bill Koffel.
  - c. Special purpose horizontally sliding doors. Rita Guest.
8. **NFPA 101 First Draft.**
  - a. Public Inputs. See attached.
  - b. Informational Public Input. See attached.
  - c. Staff-identified items. See attached.
    - i. Horizontal exit accumulation space.
    - ii. Security turnstiles.

**9. NFPA 5000 First Draft.**

- a. Public Inputs. See attached.

**10. Other business.**

**11. Future meetings.**

**12. Adjournment.**

# Address List No Phone

06/11/2024  
Gregory E. Harrington  
**SAF-MEA**

## Means of Egress Safety to Life

<b>Michael A. Crowley</b> <b>Chair</b> Coffman Engineers, Inc. 21 Waterway Suite 300 The Woodlands, TX 77380 <b>Alternate: Steven J. Whitman</b>	<b>SE 01/15/2004</b> <b>SAF-MEA</b>	<b>Gregory E. Harrington</b> <b>Secretary (Staff-Nonvoting)</b> National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471	<b>2/3/2016</b> <b>SAF-MEA</b>
<b>Ryan Alles</b> <b>Principal</b> High Rise Escape Systems, Inc. 801 Edgeforest Terrace Sanford, FL 32771 <b>The Safe Evacuation Coalition</b> <b>Alternate: Jonathan Shimshoni</b>	<b>M 7/26/2007</b> <b>SAF-MEA</b>	<b>Fred M. Bales</b> <b>Principal</b> Verisk/Insurance Services Office, Inc. (ISO) 172 Poor Farm Road Greenfield Township, PA 18407 <b>Alternate: Ryan W. Hoffer</b>	<b>I 04/17/2024</b> <b>SAF-MEA</b>
<b>Charles V. Barlow</b> <b>Principal</b> EverGlow NA, Inc. 1122 Industrial Drive PO Box 830 Matthews, NC 28106-0830	<b>M 4/14/2005</b> <b>SAF-MEA</b>	<b>Joshua Brackett</b> <b>Principal</b> Banner Health 240 W. Osborn Road Unit 5005 Phoenix, AZ 85013 <b>American Society for Healthcare Engineering</b>	<b>U 12/6/2019</b> <b>SAF-MEA</b>
<b>Kenneth E. Bush</b> <b>Principal</b> Maryland State Fire Marshals Office 301 Bay Street, Lower Level Easton, MD 21601-2721 <b>International Fire Marshals Association (IFMA)</b>	<b>E 1/1/1987</b> <b>SAF-MEA</b>	<b>Daniel Buuck</b> <b>Principal</b> National Association of Home Builders (NAHB) 1201 15th Street, NW Washington, DC 20005-2800 <b>Alternate: Steven Orłowski</b>	<b>U 03/03/2014</b> <b>SAF-MEA</b>
<b>Christopher Coombs</b> <b>Principal</b> Hoefel Welker 1301 Riverplace Boulevard #1900 Jacksonville, FL 32207	<b>SE 04/02/2020</b> <b>SAF-MEA</b>	<b>Joshua W. Elvove</b> <b>Principal</b> Self 3478 South Cimarron Way Aurora, CO 80014-3912 <b>Alternate: David A. de Vries</b>	<b>SE 1/1/1990</b> <b>SAF-MEA</b>
<b>Ronald R. Farr</b> <b>Principal</b> Plainwell Fire Department 1226 107th Avenue Otsego, MI 49078 <b>Michigan Fire Inspectors Society</b> <b>Alternate: Paul L. Dove</b>	<b>E 08/17/2018</b> <b>SAF-MEA</b>	<b>Teresa "Tracey" A. Fillmore</b> <b>Principal</b> Lee Health 4211 Metro Parkway Fort Myers, FL 33916 <b>American Society of Interior Designers</b> <b>Alternate: Rita C. Guest</b>	<b>U 12/6/2019</b> <b>SAF-MEA</b>

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**SAF-MEA**

## Means of Egress

### Safety to Life

<b>David W. Frable</b>	<b>U</b> 1/1/1990	<b>Laura Frye</b>	<b>SE</b> 11/30/2016
<b>Principal</b> US General Services Administration Public Buildings Service 665 Green Meadow Lane Geneva, IL 60134 <b>US General Services Administration</b>	<b>SAF-MEA</b>	<b>Principal</b> Door Safety LLC 706 Owl Creek Court Charlottesville, VA 22903	<b>SAF-MEA</b>
<b>Michelle Renee Gebhart</b>	<b>SE</b> 04/14/2021	<b>Bryan Lawrence Hoskins</b>	<b>SE</b> 10/23/2013
<b>Principal</b> Jensen Hughes 2310 West Plano Parkway Suite 210 Plano, TX 75075 <b>Alternate: Joseph Bell</b>	<b>SAF-MEA</b>	<b>Principal</b> Oklahoma State University 522 Engineering North Stillwater, OK 74078 <b>Alternate: Virginia R. Charter</b>	<b>SAF-MEA</b>
<b>Waymon Jackson</b>	<b>U</b> 7/23/2008	<b>William E. Koffel</b>	<b>SE</b> 1/1/1992
<b>Principal</b> University of Texas at Austin 1 University Station Stop C2600 PO Box 7729 Austin, TX 78713 <b>Alternate: Josh Lambert</b>	<b>SAF-MEA</b>	<b>Principal</b> Koffel Associates, Inc. 8815 Centre Park Drive Suite 200 Columbia, MD 21045-2107 <b>Alternate: Joshua Talley</b>	<b>SAF-MEA</b>
<b>Mark Larson</b>	<b>U</b> 08/17/2018	<b>Brian A. Marcyjanik</b>	<b>U</b> 04/05/2016
<b>Principal</b> Mark Larson and Associates LLC 1574 N. Ellington Way Eagle, ID 83616 <b>National Disability Rights Network</b>	<b>SAF-MEA</b>	<b>Principal</b> US Department of Veterans Affairs 811 Vermont Avenue NW Washington, DC 20571 <b>Alternate: John Lechman</b>	<b>SAF-MEA</b>
<b>Joe McElvaney</b>	<b>M</b> 12/07/2021	<b>Denise L. Pappas</b>	<b>M</b> 08/10/2022
<b>Principal</b> The Hiller Companies 1818 W. Olney Avenue Phoenix, AZ 85041 <b>Automatic Fire Alarm Association, Inc.</b> <b>Alternate: Maria B. Marks</b>	<b>SAF-MEA</b>	<b>Principal</b> Keltron Corporation 1110 Beaumont Road Roanoke, VA 24019 <b>National Electrical Manufacturers Association</b> <b>Alternate: Andrew G. Berezowski</b>	<b>SAF-MEA</b>
<b>Jake Pauls</b>	<b>C</b> 1/1/1977	<b>Vincent Quintero</b>	<b>SE</b> 10/18/2011
<b>Principal</b> Jake Pauls Consulting Services 255 Glenlake Avenue Suite 2207 Toronto, ON M6P 1G2 Canada <b>American Public Health Association</b> <b>Alternate: Stanley C. Harbuck</b>	<b>SAF-MEA</b>	<b>Principal</b> VGQ Enterprises 1 Hamilton Road Somerset, MA 02725	<b>SAF-MEA</b>

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**SAF-MEA**

## Means of Egress Safety to Life

<b>Mitchell Ramseur</b> Principal M. Ramseur & Associates, PLLC. 925B Peachtree Street NE Suite 2041 Atlanta, GA 30309	<b>SE</b> 08/24/2021 SAF-MEA	<b>Kenneth Saks</b> Principal US National Institutes of Health 502 Hillsboro Drive Silver Spring, MD 20902-3131 Alternate: Paul J. Richards	<b>U</b> 10/23/2013 SAF-MEA
<b>Michael S. Shulman</b> Principal UL LLC 47173 Benecia Street Fremont, CA 94538 Alternate: Jon G. Roberts	<b>RT</b> 1/15/1999 SAF-MEA	<b>J. Francois Simard</b> Principal Cirque Du Soleil 8400 2E Avenue Montreal, QC H1Z 4M6 Canada Alternate: Eduardo Martin	<b>IM</b> 08/11/2014 SAF-MEA
<b>Michael David Six</b> Principal US Air Force 139 Barnes Drive, Suite 1 Tyndall Air Force Base, FL 32403	<b>E</b> 08/23/2023 SAF-MEA	<b>Kelly R. Tilton</b> Principal US Central Intelligence Agency 15160 Winesap Drive North Potomac, MD 20878	<b>U</b> 01/10/2008 SAF-MEA
<b>Joseph H. Versteeg</b> Principal Versteeg Associates 86 University Drive Torrington, CT 06790	<b>SE</b> 1/1/1990 SAF-MEA	<b>Kevin L. Brinkman</b> Voting Alternate National Elevator Industry, Inc. 925 West Center Street Eureka, IL 61530-9505	<b>M</b> 08/17/2015 SAF-MEA
<b>John Woestman</b> Voting Alternate Kellen Company 808 North York Street Monroe, IA 50170-7791 Builders Hardware Manufacturers Association	<b>M</b> 8/5/2009 SAF-MEA	<b>Joseph Bell</b> Alternate Jensen Hughes 3500 Piedmont Road NE Suite 750 Atlanta, GA 30305 Principal: Michelle Renee Gebhart	<b>SE</b> 11/29/2023 SAF-MEA
<b>Andrew G. Berezowski</b> Alternate Honeywell Inc. 12 Clintonville Road Northford, CT 06472-1610 National Electrical Manufacturers Association Principal: Denise L. Pappas	<b>M</b> 04/08/2015 SAF-MEA	<b>Virginia R. Charter</b> Alternate Oklahoma State University 523 Engineering North Stillwater, OK 74078-8016 Principal: Bryan Lawrence Hoskins	<b>SE</b> 12/08/2015 SAF-MEA
<b>David A. de Vries</b> Alternate Firetech Engineering Inc. 8052 Monticello Avenue Suite 202 Skokie, IL 60076-3438 Principal: Joshua W. Elvove	<b>SE</b> 7/1/1993 SAF-MEA	<b>Paul L. Dove</b> Alternate 205 Fairfield Drive Coldwater, MI 49036 Michigan Fire Inspectors Society Principal: Ronald R. Farr	<b>E</b> 08/17/2018 SAF-MEA

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## Means of Egress Safety to Life

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<b>Ryan W. Hoffer</b> <b>Alternate</b> Verisk ISO 941 Calle Mejia Apartment 331 Santa Fe, NM 87501 <b>Principal: Fred M. Bales</b>	<b>I 04/12/2022</b> <b>SAF-MEA</b>	<b>Josh Lambert</b> <b>Alternate</b> University of Texas at Austin 304 East 24th Street Suite 202AD Mail Code C2600 Austin, TX 78712 <b>Principal: Waymon Jackson</b>	<b>U 07/29/2013</b> <b>SAF-MEA</b>
<b>John Lechman</b> <b>Alternate</b> Department of Veteran Affairs, Veterans Health Administration Central Office Office of Occupational Safety and Health 811 Vermont Avenue, NW Washington, DC 20571 <b>Principal: Brian A. Marcyjanik</b>	<b>U 08/24/2021</b> <b>SAF-MEA</b>	<b>Maria B. Marks</b> <b>Alternate</b> Siemens Industry, Inc. 4001 Spruell Drive Kensington, MD 20895-1346 <b>Automatic Fire Alarm Association, Inc.</b> <b>Principal: Joe McElvaney</b>	<b>M 04/12/2022</b> <b>SAF-MEA</b>
<b>Eduardo Martin</b> <b>Alternate</b> Devecem Iberica 30-32 Blvd De Sebastopol 75004 France, PARIS 75004 France <b>Principal: J. Francois Simard</b>	<b>IM 12/07/2018</b> <b>SAF-MEA</b>	<b>Steven Orlowski</b> <b>Alternate</b> Sundowne Building Code Consultants, LLC. 8401 Pete Wiles Road Middletown, MD 21769 <b>National Association of Home Builders (NAHB)</b> <b>Principal: Daniel Buuck</b>	<b>U 12/07/2022</b> <b>SAF-MEA</b>
<b>Paul J. Richards</b> <b>Alternate</b> National Institute of Health (NIH)- Division of the Fire Marshal 5202 West Cedar Lane Building 15G2 Bethesda, MD 20892 <b>Principal: Kenneth Saks</b>	<b>U 08/11/2020</b> <b>SAF-MEA</b>	<b>Jon G. Roberts</b> <b>Alternate</b> UL LLC 6608 North Western Avenue #280 Oklahoma City, OK 73116-7326 <b>Principal: Michael S. Shulman</b>	<b>RT 08/17/2015</b> <b>SAF-MEA</b>

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## Means of Egress

### Safety to Life

<b>Jonathan Shimshoni</b>	<b>M 3/1/2011</b>	<b>Joshua Talley</b>	<b>SE 11/29/2023</b>
<b>Alternate</b> Escape Rescue Systems Ltd. David Hamelek 7 Tel-Aviv, 64953 Israel <b>The Safe Evacuation Coalition</b> <b>Principal: Ryan Alles</b>	<b>SAF-MEA</b>	<b>Alternate</b> Koffel Associates, Inc. 8815 Centre Park Drive Suite 200 Columbia, MD 21045-2107 <b>Principal: William E. Koffel</b>	<b>SAF-MEA</b>
<b>Steven J. Whitman</b>	<b>SE 04/03/2019</b>	<b>Pichaya Chantranuwat</b>	<b>SE 1/18/2001</b>
<b>Alternate</b> Coffman Engineers 8171 Maple Lawn Boulevard Suite 320 Fulton, MD 20759 <b>Principal: Michael A. Crowley</b>	<b>SAF-MEA</b>	<b>Nonvoting Member</b> Fusion Consultants Co. Ltd/Thailand 81/55 Soi Phumijit Rama 4 Road Prakanong, Klontoe Bangkok, 10110 Thailand	<b>SAF-MEA</b>
<b>William R. Hamilton</b>	<b>E 3/4/2009</b>	<b>Reginald D. Jackson</b>	<b>E 08/17/2017</b>
<b>Nonvoting Member</b> US Department of Labor Occupational Safety & Health Administration 200 Constitution Avenue NW, Room N3609 Washington, DC 20210	<b>SAF-MEA</b>	<b>Nonvoting Member</b> US Department of Labor Occupational Safety and Health Administration 200 Constitution Avenue NW, Room 3107 Washington, DC 20210-0001 <b>Occupational Safety &amp; Health Administration</b>	<b>SAF-MEA</b>
<b>Gregory E. Harrington</b>	<b>2/3/2016</b>		
<b>Staff Liaison</b> National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471	<b>SAF-MEA</b>		



# NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

## MINUTES

### NFPA Building Code/Safety to Life Technical Committee on Means of Egress (BLD/SAF-MEA) NFPA 101/5000 Second Draft Meeting (A2023)

July 13-14, 2022  
Microsoft Teams Meeting

1. **Call to order.** The meeting was called to order by Chair David Collins at 11:00 a.m. (EDT) on July 13, 2022.
2. **Introductions.** Staff Liaison Gregory Harrington called the roll of committee members. See attached for attendance.
3. **Chair report.** The chair welcomed and thanked the committee for attending and indicated the primary purpose of the meeting was to prepare the second drafts of the 2024 editions of NFPA 101 and NFPA 5000. He also indicated that this is his last meeting as chair due to the NFPA tenure policy. Anyone interested in assuming the chair position should contact him and staff.
4. **Staff liaison report.** Staff added his welcome and thanks and delivered a presentation on the NFPA second draft meeting process.
5. **Previous meeting minutes.** The July 8-9, 2021, first draft meeting minutes were approved as submitted.
6. **Special purpose horizontally sliding doors task group report.** No report. The task group was retained on the agenda. The chair requested that the task group keep him and staff apprised of its progress in accordance with the Regulations Governing the Development of NFPA Standards. Task group roster: R. Guest (TG chair), W. Koffel, V. Quintero.
7. **Review Correlating Committee on Building Code previous meeting minutes.** The committee reviewed the BLD-AAC minutes, including the items directed to BLD-MEA and all technical committees.
  - a. NFPA 13, 13D, 13R references in NFPA 5000: The committee reviewed the correlating committee direction and developed second revisions as requested. See the NFPA 5000 Second Draft Report.
  - b. Damper terminology task group recommendations: No action required on NFPA 5000.
  - c. Use of “draftstop” versus “draft stop”: No action required.
  - d. Modular rooms/sleep pods: No action required.
8. **Review Correlating Committee on Safety to Life previous meeting minutes.** The committee reviewed the SAF-AAC minutes, including the items directed to SAF-MEA and all technical committees.



- a. NFPA 13, 13D, 13R references in NFPA 101: The committee reviewed the correlating committee direction and developed second revisions as requested. See the NFPA 101 Second Draft Report.
- b. Damper terminology task group recommendations: The committee reviewed and acted on the task group public comment. See the NFPA 101 Second Draft Report.
- c. Use of “draftstop” versus “draft stop”: No action required.
- d. Modular rooms/sleep pods: No action required.

#### **9. NFPA 101 Second Draft.**

- a. **Referenced publications.** The committee reviewed the recommended reference publication updates. No action.
- b. **Extracts.** No action required.
- c. **Public Comments.** The committee reviewed and acted on the NFPA 101 public comments. See the NFPA 101 Second Draft Report.
- d. **Committee Inputs.** The committee reviewed the NFPA 101 committee inputs and developed second revisions as applicable. See the NFPA 101 Second Draft Report.

#### **10. NFPA 5000 Second Draft.**

- a. **Referenced publications.** The committee reviewed the recommended reference publication updates. No action.
- b. **Extracts.** No action required.
- c. **Public Comments.** The committee reviewed and acted on the NFPA 5000 public comments. See the NFPA 5000 Second Draft Report.
- d. **Committee Inputs.** The committee reviewed the NFPA 5000 committee inputs and developed second revisions as applicable. See the NFPA 5000 Second Draft Report.

#### **11. Other business.**

- a. **Cable guard question.** The committee reviewed and discussed the question on cable guards received by staff. Following discussion, a task group was appointed to further investigate the issue and develop any needed recommendations for the next revision cycle and report at the next meeting. Task group members: W. Jackson (TG chair), Ray Battalora (University of Texas at Austin), D. Collins, S. Orłowski, J. Pauls, V. Quintero, J. Woestman.
- b. **Other business.**
  - i. J. Pauls announced this marks his 45<sup>th</sup> year on the committee and that he intends to serve for another two revision cycles. He was congratulated by the committee for his longevity.
  - ii. W. Koffel suggested that actions taken on two-way communication systems for areas of refuge might create confusion as they relate to elevator lobbies and occupant evacuation elevators. A task group was appointed to further review the issue and develop any needed recommendations for the next revision cycle. Task group members:

W. Koffel (TG chair), A. Berezowski, M. Crowley, D. Frable, W. Jackson, M. Larson, M. Marks, J. McElvaney, M. Mueller.

- iii. A motion passed directing staff to develop any needed second revisions to coordinate actions between NFPA 101 and NFPA 5000 for consistency where applicable.
- iv. Staff invited the committee to recognize Chair Collins for his years of service to and leadership of the committee and reported that working with him over his tenure was a great pleasure. The committee joined staff in so recognizing the chair. He will be missed as he enjoys a well-deserved retirement.

**12. Future meetings.** Staff reported the committee will next meet to prepare the first drafts of the 2027 editions of NFPA 101 and NFPA 5000 about two years from now (2024).

**13. Adjournment.** The meeting adjourned at 12:12 p.m. (EDT) on July 14, 2022.

**Attendees****Committee Members:**

X	Collins, David	Chair	American Institute of Architects
X	Harrington, Gregory	Secretary (Staff-	National Fire Protection Association
X	Alles, Ryan	Principal	The Safe Evacuation Coalition
X	Barlow, Charles	Principal	EverGlow NA, Inc.
X	Brackett, Joshua	Principal	American Society for Healthcare
X	Bush, Kenneth	Principal	International Fire Marshals Association
X	Clayton, Jason	Principal	Verisk Analytics/Insurance Services Office,
X	Coombs, Christopher	Principal	HDR
X	Crowley, Michael	Principal	Coffman Engineers, Inc.
	Day, Richard	Principal	Michigan State Fire Marshal's Office
X	Elvove, Joshua	Principal	Self
	Farr, Ronald	Principal	Michigan Fire Inspectors Society
X	Frable, David	Principal	US General Services Administration
X	Gebhart, Michelle	Principal	Jensen Hughes
	Guest, Rita	Principal	American Society of Interior Designers
	Hoskins, Bryan	Principal	Oklahoma State University
X	Jackson, Waymon	Principal	University of Texas at Austin
X	Larson, Mark	Principal	National Disability Rights Network
	Lathrop, James	Principal	Koffel Associates, Inc.
	Leffler, John	Principal	Forcon International, Ltd.
X	Marcyjanik, Brian	Principal	US Department of Veterans Affairs
X	McElvaney, Joe	Principal	Automatic Fire Alarm Association, Inc.
X	Mueller, Marc	Principal	National Elevator Industry Inc.
X	Pauls, Jake	Principal	American Public Health Association
X	Quinterno, Vincent	Principal	Rhode Island State Fire Marshal's Office
X	Ramseur, Mitchell	Principal	M. Ramseur & Associates, PLLC.
X	Saks, Kenneth	Principal	US National Institutes of Health
X	Schwarzenberg, Roy	Principal	US Central Intelligence Agency
X	Shulman, Michael	Principal	UL LLC

X	<b>Simard, J. Francois</b>	Principal	Cirque Du Soleil
	<b>Tierney, Michael</b>	Principal	Builders Hardware Manufacturers
	<b>Versteeg, Joseph</b>	Principal	Versteeg Associates
X	<b>Berezowski, Andrew</b>	Voting Alternate	National Electrical Manufacturers
	<b>Buuck, Daniel</b>	Voting Alternate	National Association of Home Builders
X	<b>Brinkman, Kevin</b>	Alternate	National Elevator Industry Inc.
X	<b>Charter, Virginia</b>	Alternate	Oklahoma State University
	<b>de Vries, David</b>	Alternate	Firetech Engineering Inc.
	<b>Dove, Paul</b>	Alternate	Michigan Fire Inspectors Society
	<b>Harbuck, Stanley</b>	Alternate	American Public Health Association
	<b>Hoffer, Ryan</b>	Alternate	Verisk ISO
X	<b>Koffel, William</b>	Alternate	Koffel Associates, Inc.
	<b>Lambert, Josh</b>	Alternate	University of Texas at Austin
X	<b>Lechman, John</b>	Alternate	US Department of Veterans Affairs
X	<b>Marks, Maria</b>	Alternate	Automatic Fire Alarm Association, Inc.
	<b>Martin, Eduardo</b>	Alternate	Devecem Iberica
X	<b>Richards, Paul</b>	Alternate	National Institute of Health (NIH)- Division
X	<b>Roberts, Jon</b>	Alternate	UL LLC
	<b>Shimshoni, Jonathan</b>	Alternate	The Safe Evacuation Coalition
X	<b>Tilton, Kelly</b>	Alternate	US Central Intelligence Agency
X	<b>Whitman, Steven</b>	Alternate	Coffman Engineers
X	<b>Woestman, John</b>	Alternate	Builders Hardware Manufacturers
	<b>Chantranuwat, Pichaya</b>	Nonvoting Member	Fusion Consultants Co. Ltd/Thailand
	<b>Hamilton, William</b>	Nonvoting Member	Occupational Safety & Health
X	<b>Jackson, Reginald</b>	Nonvoting Member	Occupational Safety & Health
X	<b>Harrington, Gregory</b>	Staff Liaison	National Fire Protection Association

**Guests:**

Steven Orłowski, Sundowne Building Code Consultants

Total in attendance: 37



# NATIONAL FIRE PROTECTION ASSOCIATION

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## MINUTES

**NFPA Correlating Committee on Building Code (BLD-AAC)**

**NFPA Correlating Committee on Safety to Life (SAF-AAC)**

**NFPA 101 and NFPA 5000 Pre-First Draft Meeting (A2026)**

February 13, 2024

1:00 p.m. (ET)

Microsoft Teams Remote Meeting

1. **Call to order.** P. Willse, BLD-AAC chair, on behalf of J. Tubbs, SAF-AAC chair, and himself, called the meeting to order at 1:00 p.m. on February 13, 2024.
2. **Introductions.** NFPA staff took attendance.
3. **Chair reports.** J. Tubbs introduced himself as the recently appointed chair of the Correlating Committee on Safety to Life, welcomed attendees, and provided an overview of the meeting. P. Willse added his welcome to the 2026 edition revision cycles of NFPA 101 and NFPA 5000.
4. **Staff liaison reports.**
  - a. G. Harrington and K. Carr introduced the technical committee chairs who were appointed since the previous revision cycle:
    - i. B. Cronin, chair of the Technical Committee on Residential Occupancies, replacing James Lathrop
    - ii. M. Crowley, chair of the Technical Committee on Means of Egress, replacing David Collins
    - iii. N. Dawe, chair of the Technical Committee on Mercantile and Business Occupancies, replacing Amy Murdock
    - iv. J. Rickard, chair of the Technical Committee on Building Systems, replacing Joshua Greene
    - v. M. Savage, chair of the Technical Committee on Structures, Construction, and Materials, replacing Moriel Kaplan
  - b. K. Carr provided an overview of copyright and the use of extracts from non-NFPA documents in NFPA standards. NFPA is asking all committees to review such extracts and determine whether non-NFPA extracts can be revised so that they no longer extract from non-NFPA documents to reduce the needed permissions from external organizations. Motions by BLD-AAC and SAF-AAC directing all technical committees to review non-

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These minutes are considered preliminary until approved at the next committee meeting.

NFPA extracts in NFPA 101 and NFPA 5000 and revise where appropriate passed. Such direction will be provided to the technical committees via First Draft meeting agenda items.

- c. K. Carr reported that NFPA is asking all correlating and technical committee members to be mindful that, in accordance with the [Guide for the Conduct of Participants in the NFPA Standards Development Process](#), a TC/CC member in any interest category who has been retained to represent the interests of another interest category with respect to a specific issue or issues that are to be addressed by a TC/CC shall declare those interests to the committee and refrain from voting on any Public Input, Public Comment, or other matter relating to those issues. Members are encouraged to periodically review the *Conduct Guide* for details.

## **5. Previous meeting minutes.**

- a. The minutes of the December 13, 2022, SAF-AAC NFPA 101 Second Draft meeting were approved with the following correction: In item 6.b, change “DAX” to “DACT.”
- b. The minutes of the December 14, 2022, BLD-AAC NFPA 5000 Second Draft meeting were approved with the following corrections: Under “Attendees” and “Guests,” the following corrections to names and organizations were made: Mark Smith, Summit Fire & Security/Fire Life Safety; Peter Larrimer\*, US Department of Veterans Affairs; Rodger Reiswig, Johnson Controls; Shamim Rashid-Sumar, National Ready Mix Concrete Association; Chip Carson, Carson Associates, Inc.

## **6. Liaison reports.**

- a. Sprinkler project. W. Koffel reported that the NFPA 13/13R/13D second drafts are now posted and open for NITMAMs (closing date March 27, 2024). No apparent conflicts or concerns exist between the revised sprinkler standards and NFPA 101/5000.
- b. Fire alarm project. S. Clary reported that NFPA 72 is in the same position as the sprinkler standards with the same NITMAM closing date. No apparent conflicts or concerns exist between the revised NFPA 72 and NFPA 101/5000.

## **7. Correlating Committee task group reports.**

- a. Sprinkler system supervision: J. Hugo. No report; the task group will convene prior to the First Draft meetings.
- b. Occupant load terminology: J. Tubbs. The task group chair asked to be replaced as he is now chairing SAF-AAC. M. Crowley will take over as task group chair and it will convene prior to the first draft meetings.
- c. TC scopes: E. Rosenbaum. The draft scopes were circulated for comments following the previous correlating committee second draft meetings. No comments were received.
  - i. A motion by SAF-AAC was passed to forward the proposed SAF-XXX scopes to the Standards Council as modified by deleting any references to “property protection.” See attached.

- ii. A motion by BLD-AAC was passed to forward the proposed BLD-XXX scopes to the Standards Council as modified by deleting any references to “movement of people.” A subsequent motion to reconsider the action and reinsert “movement of people” into the BLD-FIR scope passed. See attached.
- d. Modular rooms/sleep pods: H. Hopper. Staff will coordinate with the task group and correlating chairs to expand its roster. The intent is for the group to convene prior to the NFPA 101/5000 First Draft meetings.
- e. Short-term housing rentals: Staff will coordinate with the correlating committee chairs and the chairs of the relevant technical committees (BLD/SAF-FUN and BLD/SAF-RES) to develop a task group scope, recruit members, and appoint a task group chair.
- f. Exterior walls (NFPA 5000): Staff will coordinate with the BLD-BLC and BLD-SCM joint task group, as needed, who are planning to convene prior to NFPA 101/5000 Public Input Closing Dates.

## **8. Correlating Committee direction to all technical committees.**

- a. Separation of vertical buildings.
  - i. A motion by SAF-AAC was passed: Direct the applicable SAF-XXX technical committees to review the sections of NFPA 101 noted in item 8.a.i of the BLD/SAF-AAC Pre-First Draft Meeting Agenda for any inconsistencies as they relate to podium or pedestal construction and make any needed revisions via the creation of First Revisions or Committee Input at the First Draft meetings. Indicate whether revisions were needed in the technical committee First Draft meeting minutes. *Note: Affected committees include SAF-FIR (8.2.1.3(4)), SAF-FUN (4.6.3(5)), and the occupancy committees with construction limits in the X.1.6 subsection (SAF-AXM, SAF-END, SAF-HEA, SAF-DET, and SAF-BCF).*
  - ii. A motion by BLD-AAC was passed: Direct the applicable BLD-XXX technical committees to review the sections of NFPA 5000 noted in item 8.a.ii of the BLD/SAF-AAC Pre-First Draft Meeting Agenda for any inconsistencies as they relate to podium or pedestal construction and make any needed revisions via the creation of First Revisions or Committee Input at the First Draft meetings. Indicate whether revisions were needed in the technical committee First Draft meeting minutes. *Note: This impacts all BLD technical committees, with the exception of BLD-BLC, who has jurisdiction over all requirements (7.4.3.6.5, 7.4.3.6.7, 8.3.3.7.1, D.6.6, D.6.8).*
- b. Fire alarm notification signal terminology (*visual* vs. *visible*) for consistency with NFPA 72.
  - i. A motion by SAF-AAC was passed: Direct the SAF-XXX technical committees to review their use of the terms *visual* and *visible* as they relate to fire alarm signals and revise, as needed, to align with NFPA 72, *National Fire Alarm and Signaling Code*.
  - ii. A motion by BLD-AAC was passed: Direct the BLD-XXX technical committees to review their use of the terms *visual* and *visible* as they relate to fire alarm signals and revise, as needed, to align with NFPA 72, *National Fire Alarm and Signaling Code*.

## **9. TC updates/subject areas of interest for TC focus during 2027 edition revision cycle.**

- a. TC on Assembly Occupancies (BLD/SAF-AXM). Chair J. Lambert reported there are several task groups held over from the previous cycle addressing nightclub-type special assembly occupancies, crowd manager requirements, festival seating terminology and requirements, and carbon monoxide detection requirements.
- b. TC on Board and Care Facilities (BLD/SAF-BCF). Chair John Rickard reported a task group on carbon monoxide detection for existing occupancies was held over from the previous cycle. There is also interest in putting together a task group with other affected committees on the subject of LPG and natural gas detection in buildings.
- c. TC on Building Construction: (BLD-BLC): Chair M. Chrisman reported a joint task group between BLD-BLC and BLD-SCM will begin work on requirements pertaining to exterior walls shortly. BLC will also discuss any further revisions to sections noted in 8.a.ii above, pertaining to podium or pedestal construction.
- d. TC on Building Service and Fire Protection Equipment (BLD/SAF-BSF): No report.
- e. TC on Building Systems (BLD-BSY): Chair James Rickard reported that the committee will conduct a review of accessibility requirements within Chapter 12, and cybersecurity considerations within Chapter 56.
- f. TC on Detention and Correctional Occupancies: Chair J. Serafim reported there are no specific issues under consideration for the upcoming cycle.
- g. TC on Educational and Day Care Occupancies (BLD/SAF-END): Chair M. Mertens reported that the security task group remains active and will continue to work through the upcoming revision cycle. Other items that will continue to be vetted will include ABHR requirements, carbon monoxide detection, fire alarm system upgrades in existing occupancies, and classroom safety/door locking. There are questions on the paths forward with respect to the committee scope and the scopes of NFPA 101 and NFPA 5000. Staff will coordinate with the TC chair to provide guidance moving forward.
- h. TC on Fire Protection Features (BLD/SAF-FIR): Chair N. Wittasek reported there are no specific issues under consideration for the upcoming cycle.
- i. TC on Fundamentals (BLD/SAF-FUN): Chair C. Jelenewicz reported there are no specific issues under consideration for the upcoming cycle.
- j. TC on Health Care Occupancies (BLD/SAF-HEA): Chair W. Koffel reported there are several task groups held over from the previous cycle addressing patient privacy curtains as they relate to sprinkler obstructions, carbon monoxide detection, and occupancy classification of dental clinics.
- k. TC on Industrial, Storage, and Miscellaneous Occupancies (BLD/SAF-IND): Chair S. Sheldon reported there are no specific issues under consideration for the upcoming cycle.
- l. TC on Interior Finish and Contents (BLD/SAF-INT): Chair N. Dawe reported there are no specific issues under consideration for the upcoming cycle. He also indicated that a new chair should be appointed at the April Standards Council meeting as he was recently appointed chair of BLD/SAF-MER.



- m. TC on Means of Egress (BLD/SAF-MEA): Chair M. Crowley reported there are several task groups held over from the previous cycle addressing special purpose horizontally sliding doors, cable guards, and area of refuge communication systems.
- n. TC on Mercantile and Business Occupancies (BLD/SAF-MER): Chair N. Dawe reported there are no specific issues under consideration for the upcoming cycle.
- o. TC on Residential Occupancies (BLD/SAF-RES): Chair B. Cronin reported there are no specific issues under consideration for the upcoming cycle.
- p. TC on Structures, Construction, and Materials (BLD-SCM): Chair M. Savage reported a joint task group between BLD-BLC and BLD-SCM will begin work on requirements pertaining to exterior walls.

**10. NFPA 101A update to SAF-AAC.** G. Harrington reported that the NFPA 101A second draft is currently posted and open for NITMAMs with a closing date of March 27, 2024.

**11. Other business.** There was no other business.

**12. Future meetings.** The next correlating committee meetings will be held in January 2025. Meeting notices will be posted at [www.nfpa.org/101next](http://www.nfpa.org/101next) and [www.nfpa.org/5000next](http://www.nfpa.org/5000next) when the meetings are scheduled.

**13. Adjournment.** The meeting was adjourned at 3:20 p.m. (ET) on February 13, 2024.

**Attendees**

**BLD-AAC Committee Members:**

	Name:	Office:	Organization:
✓	<b>Willse, Peter</b>	Chair	Portland Fire Marshal's Office
✓	<b>Bellamy, Tracey</b>	Principal	American Fire Sprinkler Association
✓	<b>Frable, David</b>	Principal	US General Services Administration
✓	<b>Hansen, Raymond</b>	Principal	US Department of the Air Force
✓	<b>Hopper, Howard</b>	Principal	UL Solutions
✓	<b>Hugo, Jeffrey</b>	Principal	National Fire Sprinkler Association
	<b>O'Connor, Daniel</b>	Principal	American Hotel & Lodging Association
	<b>Quiter, James</b>	Principal	Retired-Arup
✓	<b>Roberts, Richard</b>	Principal	National Electrical Manufacturers
✓	<b>Savage, Michael</b>	Principal	Marion County Building Safety
✓	<b>Shah, Faimeen</b>	Principal	Vortex Fire Engineering Consultancy
✓	<b>Tyree, David</b>	Principal	American Wood Council
✓	<b>Vinci, Leon</b>	Principal	American Public Health Association
✓	<b>Asp, Roland</b>	Alternate	National Fire Sprinkler Association

	<b>Denhardt, John</b>	Alternate	American Fire Sprinkler Association
	<b>Keays, Jack</b>	Alternate	Vortex Fire Consulting Inc.
	<b>Laramee, Scott</b>	Alternate	American Hotel & Lodging Association
✓	<b>Marks, Maria</b>	Alternate	National Electrical Manufacturers
	<b>O'Brocki, Raymond</b>	Alternate	American Wood Council
	<b>Pauls, Jake</b>	Alternate	American Public Health Association
	<b>Simone, Joseph</b>	Alternate	US Department of the Navy
✓	<b>Tubbs, Jeffrey</b>	Alternate	Arup
✓	<b>Chrisman, Mark</b>	Nonvoting Member	TC on Building Construction
✓	<b>Cronin, Bradford</b>	Nonvoting Member	TC on Residential Occupancies
✓	<b>Crowley, Michael</b>	Nonvoting Member	TC on Means of Egress
✓	<b>Dawe, Nicholas</b>	Nonvoting Member	TC on Mercantile and Business
	<b>Grill, Raymond</b>	Nonvoting Member	TC on Building Service and Fire Protection
✓	<b>Jelenewicz, Chris</b>	Nonvoting Member	TC on Fundamentals
✓	<b>Koffel, William</b>	Nonvoting Member	TC on Health Care Occupancies
✓	<b>Lambert, Josh</b>	Nonvoting Member	TC on Assembly Occupancies
✓	<b>Mertens, Matthew</b>	Nonvoting Member	TC on Educational and Day-Care
✓	<b>Rickard, James</b>	Nonvoting Member	TC on Building Systems
✓	<b>Rickard, John</b>	Nonvoting Member	TC on Board & Care Facilities
✓	<b>Serafim, Janna</b>	Nonvoting Member	TC on Detention & Correctional
✓	<b>Sheldon, Steven</b>	Nonvoting Member	TC on Industrial, Storage, and
✓	<b>Wittasek, Nathan</b>	Nonvoting Member	TC on Fire Protection Features
✓	<b>Carr, Kevin</b>	Staff Liaison	National Fire Protection Association

**SAF-AAC Committee Members:**

✓	<b>Tubbs, Jeffrey</b>	Chair	Arup
✓	<b>Harrington, Gregory</b>	Secretary (Staff-	National Fire Protection Association
✓	<b>Bush, Kenneth</b>	Principal	Maryland State Fire Marshals Office
✓	<b>Carson, Wayne</b>	Principal	Carson Associates, Inc.
✓	<b>Harbuck, Stanley</b>	Principal	American Public Health Association
✓	<b>Hopper, Howard</b>	Principal	UL Solutions
✓	<b>Hugo, Jeffrey</b>	Principal	National Fire Sprinkler Association

✓	<b>Lucas, Jeffrey</b>	Principal	International Fire Marshals Association
	<b>Reiswig, Rodger</b>	Principal	National Electrical Manufacturers
✓	<b>Rosenbaum, Eric</b>	Principal	American Health Care Association
✓	<b>Savage, Michael</b>	Principal	Marion County Building Safety
✓	<b>Asp, Roland</b>	Alternate	National Fire Sprinkler Association
✓	<b>Marks, Maria</b>	Alternate	National Electrical Manufacturers
	<b>Pauls, Jake</b>	Alternate	American Public Health Association
	<b>Quiter, James</b>	Alternate	Retired-Arup
✓	<b>Cronin, Bradford</b>	Nonvoting Member	TC on Residential Occupancies
✓	<b>Crowley, Michael</b>	Nonvoting Member	TC on Means of Egress
✓	<b>Dawe, Nicholas</b>	Nonvoting Member	TC on Mercantile & Business Occupancies
	<b>Grill, Raymond</b>	Nonvoting Member	TC on Building Service & Fire Protection
✓	<b>Jelenewicz, Chris</b>	Nonvoting Member	TC on Fundamentals
✓	<b>Koffel, William</b>	Nonvoting Member	TC on Health Care Occupancies
✓	<b>Lambert, Josh</b>	Nonvoting Member	TC on Assembly Occupancies
	<b>Larrimer, Peter</b>	Nonvoting Member	TC on Alternative Approaches to Life
✓	<b>Mertens, Matthew</b>	Nonvoting Member	TC on Educational & Day-Care
✓	<b>Rickard, John</b>	Nonvoting Member	TC on Board & Care Facilities
✓	<b>Serafim, Janna</b>	Nonvoting Member	TC on Detention & Correctional
✓	<b>Sheldon, Steven</b>	Nonvoting Member	TC on Industrial, Storage, & Miscellaneous
✓	<b>Wittasek, Nathan</b>	Nonvoting Member	TC on Fire Protection Features
✓	<b>Clary, Shane</b>	Alt. to Nonvoting	Signaling Systems Correlating Committee

**Guests:**

Kevin Brinkman	National Elevator Industry Inc.
Jonathan Humble	National Multifamily Housing Council
Steven Orłowski	Sundowne Building Code Consultants LLC
Milosh Puchovsky	Worcester Polytechnic Institute
Larry Rietz	Jensen Hughes
William Skene	FM Global
John Woestman	Builders Hardware Manufacturers Association
Stephen Ganoe	NFPA
Camille Levy	NFPA

Jennifer Sisco	NFPA
Tracy Vecchiarelli	NFPA

Total number in attendance: 46

## Committee Scope & Responsibility

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### Safety to Life (SAF-AAC)

#### Scope

This Committee shall have primary responsibility for documents on the protection of human life from fire and other circumstances capable of producing similar consequences and for the nonemergency and emergency movement of people.

#### Responsibility

Life Safety Code® (NFPA 101)

### Alternative Approaches to Life Safety (SAF-ALS)

#### Scope

This Committee shall have primary responsibility for documents on alternative methods of protection of human life from fire and other circumstances capable of producing similar consequences and on the nonemergency and emergency movement of people.

#### Responsibility

Guide on Alternative Approaches to Life Safety (NFPA 101A)

### Assembly Occupancies (SAF-AXM)

#### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in assembly occupancies, tents, and membrane structures.

#### Responsibility

Life Safety Code® (NFPA 101) Chapter 12

Life Safety Code® (NFPA 101) Chapter 13

Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures (NFPA 102)

## Board and Care Facilities (SAF-BCF)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in residential board and care facilities.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 32

Life Safety Code® (NFPA 101) Chapter 33

## Building Service and Fire Protection Equipment (SAF-BSF)

### Scope

This Committee shall have primary responsibility for documents on building service, fire protection, and life safety equipment and systems, ~~the application of fire protection systems including detection, alarm, and suppression, and the life safety impact of various building systems as they relate to protection of human life from fire and other circumstances capable of producing similar consequences, and to the nonemergency and emergency movement of people.~~

**Comment:** Building service, fire protection, and life safety equipment and systems are covered by this committee. The last phrase includes wording used on other committee scopes.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 9

## Detention and Correctional Occupancies (SAF-DET)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in detention and correctional occupancies.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 22

Life Safety Code® (NFPA 101) Chapter 23

## Educational and Day-Care Occupancies (SAF-END)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in educational occupancies and day-care occupancies.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 14

Life Safety Code® (NFPA 101) Chapter 15

Life Safety Code® (NFPA 101) Chapter 16

Life Safety Code® (NFPA 101) Chapter 17

## Fire Protection Features (SAF-FIR)

### Scope

This Committee shall have primary responsibility for documents on construction, compartmentation, and special hazards including the performance of assemblies, openings, and penetrations, as related to the protection of life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and to the nonemergency and emergency movement of people.

**Comment** – Special hazards are included in Section 8.7. The wording about “performance of assemblies, openings and penetrations” is not needed or grammatically correct. The addition of the last phrase is consistent with other committee scopes.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 8

## Fundamentals of Safety to Life (SAF-FUN)

### Scope

This Committee shall have primary responsibility for documents on the basic goals, objectives, performance requirements, and definitions for protection of human life ~~and property~~ from fire, ~~earthquake, flood, wind,~~ and other circumstances capable of producing similar consequences, ~~and~~ on the nonemergency and emergency movement of people, and on high-rise buildings.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 1  
Life Safety Code® (NFPA 101) Chapter 11.8  
Life Safety Code® (NFPA 101) Chapter 2  
Life Safety Code® (NFPA 101) Chapter 4  
Life Safety Code® (NFPA 101) Chapter 43  
Life Safety Code® (NFPA 101) Chapter 5  
Life Safety Code® (NFPA 101) Chapter 6  
Life Safety Code® (NFPA 101) Chapter C  
Life Safety Code® (NFPA 101) Chapter D

## Health Care Occupancies (SAF-HEA)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the ~~nonemergency and~~ emergency movement of people in health care and ambulatory health care occupancies.

**Comment:** The committee requested adding ambulatory health care, which are assigned chapters for them.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 18  
Life Safety Code® (NFPA 101) Chapter 19  
Life Safety Code® (NFPA 101) Chapter 20  
Life Safety Code® (NFPA 101) Chapter 21



## Industrial, Storage, and Miscellaneous Occupancies (SAF-IND)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in industrial and storage occupancies, special structures, and ~~windowless and underground~~ limited-access buildings.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 11

Life Safety Code® (NFPA 101) Chapter 40

Life Safety Code® (NFPA 101) Chapter 42

## Interior Finish and Contents (SAF-INT)

### Scope

This Committee shall have primary responsibility for documents on ~~limiting the impact of~~ interior finish, contents, furnishings, and combustible decorations ~~building contents as related to the~~ protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people.

**Comment:** The existing wording about “limiting the impact of interior finish” is very awkward. Contents and combustible decoration are covered by this committee. “Building contents” was replaced with “contents” because outdoor furniture is within the scope of the chapter. “The phrase “as related to the protection” is in the scope of the Fire Protection Features committee.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 10

## Means of Egress (SAF-MEA)

### Scope

This Committee shall have primary responsibility for documents on the general requirements for safe egress for protection of human life from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people.

### Responsibility

Life Safety Code® (NFPA 101) Annex B

Life Safety Code® (NFPA 101) Chapter 7

## Mercantile and Business Occupancies (SAF-MER)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and for the nonemergency and emergency movement of people in mercantile and business occupancies.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 36

Life Safety Code® (NFPA 101) Chapter 37

Life Safety Code® (NFPA 101) Chapter 38

Life Safety Code® (NFPA 101) Chapter 39

## Residential Occupancies (SAF-RES)

### Scope

This Committee shall have primary responsibility for documents on protection of human life ~~and property~~ from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in hotels, dormitories, apartments, lodging ~~and or~~ rooming houses, and one- and two-family dwellings.

### Responsibility

Life Safety Code® (NFPA 101) Chapter 24

Life Safety Code® (NFPA 101) Chapter 26

Life Safety Code® (NFPA 101) Chapter 28

Life Safety Code® (NFPA 101) Chapter 29

Life Safety Code® (NFPA 101) Chapter 30

Life Safety Code® (NFPA 101) Chapter 31

## Committee Scope & Responsibility

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### **Building Code (BLD-AAC)**

#### **Scope**

This committee shall have primary responsibility for documents or portions of documents on the design and construction of every building or structure, including structural design methods and techniques, as well as the design of integrated building systems for health, safety, comfort, and convenience.

#### **Responsibility**

Building Construction and Safety Code® (NFPA 5000)  
Building Construction and Safety Code® (NFPA 5000) Chapter 3

### **Assembly Occupancies (BLD-AXM)**

#### **Scope**

This Committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in assembly occupancies, tents, and membrane structures.

#### **Responsibility**

Building Construction and Safety Code® (NFPA 5000) Chapter 16

### **Board and Care Facilities (BLD-BCF)**

#### **Scope**

This Committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in residential board and care facilities.

#### **Responsibility**

Building Construction and Safety Code® (NFPA 5000) Chapter 26

## Building Construction (BLD-BLC)

### Scope

This committee shall have primary responsibility for documents on the selection and design of types of building construction, exterior walls, building height and area, firewalls, and fire barrier walls, as they relate to the protection of life and property from fire. For the processing of NFPA 5000, Chapter 7, and Sections 8.3 and 8.4, this committee reports directly to the NFPA 5000 Correlating Committee; whereas, for the processing of NFPA 220 and NFPA 221, this committee does not report to the NFPA 5000 Correlating Committee.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Annex D  
Building Construction and Safety Code® (NFPA 5000) Chapter 7  
Building Construction and Safety Code® (NFPA 5000) Chapter 8.3  
Building Construction and Safety Code® (NFPA 5000) Chapter 8.4  
Standard for High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls (NFPA 221)  
Standard on Types of Building Construction (NFPA220)

## Building Service and Fire Protection Equipment (BLD-BSF)

### Scope

This Committee shall have primary responsibility for documents on building service, fire protection, and life safety equipment and systems ~~the application of fire protection systems including detection, alarm, and suppression, and the life safety impact of various building systems.~~ as they relate to protection of human life from fire and other circumstances capable of producing similar consequences, and to the nonemergency and emergency movement of people.

Comment: Building service, fire protection, and life safety equipment and systems are covered by this committee. The last phrase includes wording used on other committee scopes.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 55

## **Building Systems(BLD-BSY)**

### **Scope**

This Committee shall have primary responsibility for documents on the application of various building systems and features that relate to convenience, health, comfort, and access to a building.

### **Responsibility**

Building Construction and Safety Code® (NFPA 5000) Annex A  
Building Construction and Safety Code® (NFPA 5000) Annex B  
Building Construction and Safety Code® (NFPA 5000) Chapter 12  
Building Construction and Safety Code® (NFPA 5000) Chapter 49  
Building Construction and Safety Code® (NFPA 5000) Chapter 50  
Building Construction and Safety Code® (NFPA 5000) Chapter 51  
Building Construction and Safety Code® (NFPA 5000) Chapter 52  
Building Construction and Safety Code® (NFPA 5000) Chapter 53  
Building Construction and Safety Code® (NFPA 5000) Chapter 54  
Building Construction and Safety Code® (NFPA 5000) Chapter 56  
Building Energy Code (NFPA 900)

## **Detention and Correctional Occupancies (BLD-DET)**

### **Scope**

This Committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in detention and correctional occupancies.

### **Responsibility**

Building Construction and Safety Code® (NFPA 5000) Chapter 21

## Educational and Day-Care Occupancies (BLD-END)

### Scope

This Committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in educational occupancies and day-care occupancies.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 17

Building Construction and Safety Code® (NFPA 5000) Chapter 18

## Fire Protection Features (BLD-FIR)

### Scope

This Committee shall have primary responsibility for documents on construction, compartmentation, and special hazards ~~including the performance of assemblies, openings, and penetrations,~~ as related to the protection of life and property from fire and other circumstances capable of producing similar consequences, and to the nonemergency and emergency movement of people.

**Comment – Special hazards are included. The wording about “performance of assemblies, openings and penetrations” is not needed or grammatically correct. The addition of the last phrase is consistent with other committee scopes.**

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 8

## Fundamentals of the Building Code (BLD-FUN)

### Scope

This Committee shall have primary responsibility for documents on the basic goals, objectives, performance requirements, and definitions for protection of human life and property from fire; ~~earthquake, flood, wind,~~ and other circumstances capable of producing similar consequences, on the nonemergency and emergency movement of people, and on high-rise buildings.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Annex G  
Building Construction and Safety Code® (NFPA 5000) Chapter 1  
Building Construction and Safety Code® (NFPA 5000) Chapter 13  
Building Construction and Safety Code® (NFPA 5000) Chapter 14  
Building Construction and Safety Code® (NFPA 5000) Chapter 15  
Building Construction and Safety Code® (NFPA 5000) Chapter 2  
Building Construction and Safety Code® (NFPA 5000) Chapter 33  
Building Construction and Safety Code® (NFPA 5000) Chapter 4  
Building Construction and Safety Code® (NFPA 5000) Chapter 5  
Building Construction and Safety Code® (NFPA 5000) Chapter 6

## Health Care Occupancies (BLD-HEA)

### Scope

This Committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in health care and ambulatory health care occupancies.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 19  
Building Construction and Safety Code® (NFPA 5000) Chapter 20

## Industrial, Storage, and Miscellaneous Occupancies (BLD-IND)

### Scope

This Committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in industrial and storage occupancies, special structures, and ~~windowless and underground~~limited-access buildings.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 29

Building Construction and Safety Code® (NFPA 5000) Chapter 30

Building Construction and Safety Code® (NFPA 5000) Chapter 31

Building Construction and Safety Code® (NFPA 5000) Chapter 34

## Interior Finish and Contents (BLD-INT)

### Scope

This Committee shall have primary responsibility for documents on ~~limiting the impact of~~ interior finish, contents, furnishings, and ~~building contents~~combustible decorations as related to the protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people.

Comment: The existing wording about “limiting the impact of interior finish” is very awkward. Contents and combustible decoration are covered by this committee. “Building contents” was replaced with “contents” because outdoor furniture is within the scope of the chapter. “The phrase “as related to the protection” is in the scope of the Fire Protection Features committee.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 10

## Means of Egress (BLD-MEA)

### Scope

This committee shall have primary responsibility for documents on the general requirements for safe egress for protection of human life from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people.

### Responsibility



Building Construction and Safety Code® (NFPA 5000) Annex E

Building Construction and Safety Code® (NFPA 5000) Chapter 11

## Mercantile and Business Occupancies (BLD-MER)

### Scope

This committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and for the nonemergency and emergency movement of people in mercantile and business occupancies.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 27

Building Construction and Safety Code® (NFPA 5000) Chapter 28

## Residential Occupancies (BLD-RES)

### Scope

This committee shall have primary responsibility for documents on protection of human life and property from fire and other circumstances capable of producing similar consequences, and on the nonemergency and emergency movement of people in hotels, dormitories, apartments, lodging ~~and~~ or rooming houses, and one- and two-family dwellings.

### Responsibility

Building Construction and Safety Code® (NFPA 5000) Chapter 22

Building Construction and Safety Code® (NFPA 5000) Chapter 23

Building Construction and Safety Code® (NFPA 5000) Chapter 24

Building Construction and Safety Code® (NFPA 5000) Chapter 25

## **Structures, Construction, and Materials (BLD-SCM)**

### **Scope**

This committee shall have primary responsibility for documents on the protection of human life and property from fire and environmental loads through the selection and design of structural elements and assemblies; construction techniques and methodologies; and on the application of building materials used in the construction of buildings, structures, and related facilities.

### **Responsibility**

Building Construction and Safety Code® (NFPA 5000) Annex C  
Building Construction and Safety Code® (NFPA 5000) Annex F  
Building Construction and Safety Code® (NFPA 5000) Chapter 32  
Building Construction and Safety Code® (NFPA 5000) Chapter 35  
Building Construction and Safety Code® (NFPA 5000) Chapter 36  
Building Construction and Safety Code® (NFPA 5000) Chapter 37  
Building Construction and Safety Code® (NFPA 5000) Chapter 38  
Building Construction and Safety Code® (NFPA 5000) Chapter 39  
Building Construction and Safety Code® (NFPA 5000) Chapter 40  
Building Construction and Safety Code® (NFPA 5000) Chapter 41  
Building Construction and Safety Code® (NFPA 5000) Chapter 42  
Building Construction and Safety Code® (NFPA 5000) Chapter 43  
Building Construction and Safety Code® (NFPA 5000) Chapter 44  
Building Construction and Safety Code® (NFPA 5000) Chapter 45  
Building Construction and Safety Code® (NFPA 5000) Chapter 46  
Building Construction and Safety Code® (NFPA



## Public Input No. 360-NFPA 101-2024 [ New Section after 3.3 ]

### Unobstructed Way of Travel

a clear pathway with direct line of sight without blind corners and obstacles or unexpected protrusions ...

### Statement of Problem and Substantiation for Public Input

Helps to justify the meaning of a clear means of egress.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 361-NFPA 101-2024 [New Section after A.3.3.177.1]</a>	Annex or Definition

### Submitter Information Verification

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**Submittal Date:** Tue Jun 04 16:08:34 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 288-NFPA 101-2024 [ Section No. 3.3.25 [Excluding any Sub-Sections] ]

An area that is either (1) a story in a building where the building is protected throughout by an approved, supervised automatic sprinkler system and has not less than two accessible rooms or spaces separated from each other by smoke-resisting partitions and each such room or space has direct access to an accessible exit ; or (2) a space located in a path of travel leading to a public way that is protected from the effects of fire, either by means of separation from other spaces in the same building or by virtue of location, thereby permitting a delay in egress travel from any level. (SAF-MEA)

### Statement of Problem and Substantiation for Public Input

The current definition could be interpreted as allowing a room or space distant from an elevator or stair by which emergency responders would arrive thus delaying rescue. This is evident in Exhibit 7.178(d) of the Handbook. The code only requires two-way communication systems at elevator landings. The proposed change requires the area of refuge to connect with an accessible exit such as an exit stairway or elevator in accordance with 7.5.4.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 296-NFPA 101-2024 [New Section after 7.5]	

### Submitter Information Verification

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**Organization:** Jensen Hughes  
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**Committee:** SAF-MEA



## Public Input No. 81-NFPA 101-2024 [ Section No. 3.3.88 ]

### 3.3.88\* Exit.

That portion of a means of egress that is separated from all other spaces of the building or structure by construction, location, or equipment as required to provide a protected way of travel to the exit discharge, or a designated door to provide egress directly to the exit discharge of the building. (SAF-MEA)

### 3.3.88.1\* Horizontal Exit.

A way of passage from one building to an area of refuge in another building on approximately the same level, or a way of passage through or around a fire barrier to an area of refuge on approximately the same level in the same building that affords safety from fire and smoke originating from the area of incidence and areas communicating therewith. (SAF-MEA)

## Statement of Problem and Substantiation for Public Input

The existing definition of an "exit" is generally referring to an exit enclosure such as a stair or exit passageway but does not include basic exterior doors at grade level that are also exits. This causes confusion because there is not a definition for those types of exit doors. For example, a door to an exterior covered walkway that is not separated from the building could have been considered an exit door for the purposes of travel distance measurement, but that covered walkway should be included in the measurement. This revised definition clarifies that those exterior doors only count as exit doors to stop travel distance measurement when they are at grade. When they are not at grade, the travel distance measurement requirements from 7.6 would apply leading to measurement along the egress path and down exterior stairs (if necessary) until the exit discharge at grade to the public way is reached.

## Submitter Information Verification

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**Organization:** Koffel Compliance, LLC

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**Committee:** SAF-MEA



## Public Input No. 297-NFPA 101-2024 [ New Section after 3.3.165 ]

### Interlocked-Door Vestibule.

A room, space, or compartment provided with egress doors in series where only one of the doors in series is openable at a time.

### Statement of Problem and Substantiation for Public Input

This proposed definition along with complementary proposals in 7.2.1.6.5 and Chapters 18, 19, 20, 21, 36, 37, 38, 39, 40, and 42, offer the opportunity for interlocked-door vestibules in these occupancies.

Interlocked-door vestibules are utilized for environmental contamination control (health care; manufacturing clean rooms), controlled substance dispensing (prescription drugs and cannabis), occupant protection (health care), security reasons (money handling rooms), and other uses and applications.

Sally ports (security vestibule) are defined in NFPA 101 (3.3.256) and permitted in detention and correctional occupancies, sally ports are typically used as security vestibules and control egress (obviously).

Unfortunately, the term "sally port", and its definition, is predominately reserved for uses where occupants are restrained against their will in buildings or spaces.

This proposal seeks to include requirements in NFPA 101 for interlocked-door vestibules.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 298-NFPA 101-2024 [New Section after 7.2.1.6.4]</a>	
<a href="#">Public Input No. 298-NFPA 101-2024 [New Section after 7.2.1.6.4]</a>	
<a href="#">Public Input No. 299-NFPA 101-2024 [New Section after A.7.2.1.6.4.1(1)]</a>	

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**Submittal Date:** Mon Jun 03 21:22:45 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 279-NFPA 101-2024 [ Section No. 7.2.1.2.1.1 ]

### 7.2.1.2.1.1 Swinging Door Assemblies.

For swinging door assemblies, clear width shall be measured as follows:

- (1) The measurement shall be taken at the narrowest point in the door opening.
- (2) The measurement shall be taken between the face of the door leaf and the stop of the frame.
- (3) For new swinging door assemblies, the measurement shall be taken with the door leaf open 90 degrees.
- (4) For any existing door assembly, the measurement shall be taken with the door leaf in the fully open position.
- (5) Projections of not more than 4 in. (100 mm) into the door opening ~~width on the hinge side shall~~ width shall not be considered reductions in clear width, provided that such projections ~~are for purposes of accommodating panic hardware or fire exit hardware and are located~~ are located not less than 34 in. (865 mm), ~~and not more than 48 in. (1220 mm), above~~ above the floor.
- (6) Projections exceeding 6 ft 8 in. (2030 mm) above the floor shall not be considered reductions in clear width.

### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101-2027_Projections_into_Clear_Width_of_Door_Openings_20240604.pdf	PDF illustrating the proposed revisions, and providing additional information.	

### Statement of Problem and Substantiation for Public Input

Currently, this section of NFPA 101 permits projections on not more than 4 in. into the door opening on the hinge side of the door – but permits no projections into the door opening on the latch side of the door. It is common that latch strikes are surface mounted, especially for panic hardware, and these latch strikes protrude into the door opening.

The proposed revisions are consistent with ADA requirements as we have not identified a need for 101 to be more restrictive than the ADA. Below is an illustration from the U.S. Access Board Technical Guide: Entrances, Doors, and Gates. Source: <https://www.access-board.gov/ada/guides/chapter-4-entrances-doors-and-gates/>

A pdf with the text of PI 279 along with an illustration from the ADA guidelines for doors is attached, and additional information.

### Submitter Information Verification

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**Committee:** SAF-MEA



NFPA 101-2027 Projections into the clear width of door openings, consistent with the ADA.  
Revised June 4, 2024

### 7.2.1.2 Door Leaf Width.

#### 7.2.1.2.1 \* Measurement of Clear Width.

##### 7.2.1.2.1.1 Swinging Door Assemblies.

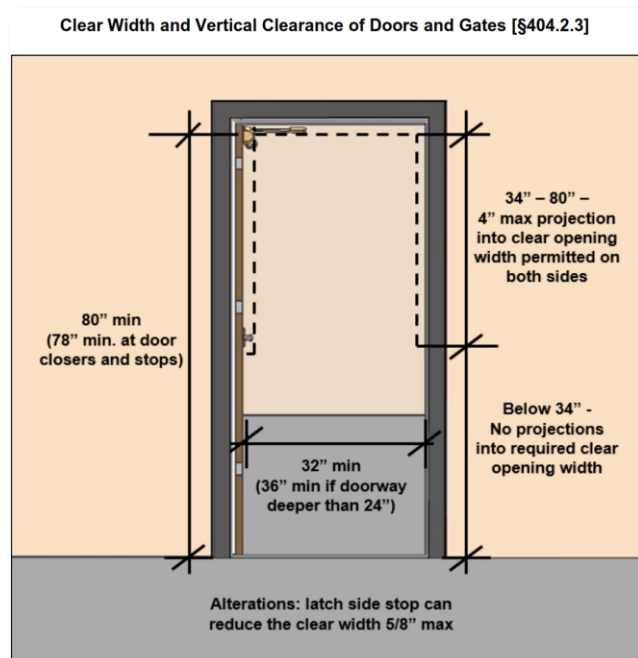
For swinging door assemblies, clear width shall be measured as follows:

- (1) The measurement shall be taken at the narrowest point in the door opening.
- (2) The measurement shall be taken between the face of the door leaf and the stop of the frame.
- (3) For new swinging door assemblies, the measurement shall be taken with the door leaf open 90 degrees.
- (4) For any existing door assembly, the measurement shall be taken with the door leaf in the fully open position.
- (5) Projections of not more than 4 in. (100 mm) into the door opening width ~~on the hinge side~~ shall not be considered reductions in clear width, provided that such projections are ~~for purposes of accommodating panic hardware or fire exit hardware and are~~ located not less than 34 in. (865 mm), ~~and not more than 48 in. (1220 mm),~~ above the floor.
- (6) Projections exceeding 6 ft 8 in. (2030 mm) above the floor shall not be considered reductions in clear width.

#### Reason:

Currently, this section of NFPA 101 permits projections on not more than 4 in. into the door opening on the hinge side of the door – but permits no projections into the door opening on the latch side of the door. It is common that latch strikes are surface mounted, especially for panic hardware, and these latch strikes protrude into the door opening.

The proposed revisions are consistent with ADA requirements as we have not identified a need for 101 to be more restrictive than the ADA. Below is an illustration from the U.S. Access Board Technical Guide: Entrances, Doors, and Gates. Source: <https://www.access-board.gov/ada/guides/chapter-4-entrances-doors-and-gates/>



These pictures are of a door into a stairway. This typical installation of the latch for the panic hardware projects into the door opening on the latch side of the door frame.





## Public Input No. 218-NFPA 101-2024 [ Section No. 7.2.1.2.2.1 ]

### 7.2.1.2.2.1 Swinging Door Assemblies.

For swinging door assemblies, egress capacity width shall be measured as follows:

- (1) The measurement shall be taken at the narrowest point in the door opening.
- (2) The measurement shall be taken between the face of the door leaf and the stop of the frame.
- (3) For new swinging doors assemblies, the measurement shall be taken with the door leaf open 90 degrees.
- (4) For any existing door assembly, the measurement shall be taken with the door leaf in the fully open position.
- (5) \* Projections not more than 3½ in. (90 mm) at each side of the door openings at a height of not more than 38 in. (965 mm) shall not be considered reductions in egress capacity width.
- (6) Projections exceeding 6 ft 8 in. (2030 mm) above the floor shall not be considered reductions in egress capacity width.

#### A.7.2.1.2.2.1(5)

Unlike the 4-inch projection for fire exit hardware and panic hardware devices, the 3-1/2-inch encroachments at both sides of the door opening are not for tangible door hardware or other materials. Instead, they apply the effective-width concept of building elements such as corridors, ramps, stairs, and doors referred to as the boundary/edge effect described in A.7.3.3.2. Essentially, the boundary/edge effect accounts for the human body's shape; we're narrower at our feet and wider at our shoulders. Consider how we walk through doorways; we tend to walk through the center area of the openings. Our feet create a natural clearance between the side jambs of the door frames as we step through the openings; otherwise, we would kick the frames with our feet and our shoulders would rub against them. The boundary/edge effect accounts for this naturally occurring clearance.

### Statement of Problem and Substantiation for Public Input

The unspecified 3-1/2-inch projections create confusion in the field as they seem to be physical obstructions into the clear width of swinging egress doors, which are not allowed. This section addresses where the egress capacity widths of swinging doors is taken due to the effective-width concept described in A.7.3.3.2. The first paragraph in A.7.3.3.2 includes the following statement: "In essence, the effective width phenomenon recognizes that there is an edge or boundary effect at the sides of a circulation path..." The boundary/edge effect applies epecially to door openings.

This proposal clarifies that the projections allowed in 7.2.1.2.2.1(5) account for the boundary/edge effect as it applies to swinging egress doors.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 219-NFPA 101-2024 [Section No. A.7.2.1.2.2]</u>	Proposed new Figure

### Submitter Information Verification

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**Submission Date:** Mon Jun 03 10:59:29 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 277-NFPA 101-2024 [ New Section after 7.2.1.2.3.2 ]

### **7.2.1.2.3.3 Door Leaves that Swing in Opposite Directions**

For a pair of doors that swing in opposite directions, each door required to swing in the direction of egress travel shall provide the required minimum clear width and egress capacity width .

### **Statement of Problem and Substantiation for Public Input**

This proposal adds provisions for where a pair of opposite-swinging doors are in the means of egress in proposed new section 7.2.1.2.3.3.

Where the occupant load is such that doors are required to swing in the direction of egress travel, the code currently does not make it clear that each door which is required to swing in the direction of egress travel (of the pair of opposite-swinging doors) is required to meet the required minimum clear width and egress capacity width.

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**Submittal Date:** Mon Jun 03 19:58:12 EDT 2024

**Committee:** SAF-MEA



## Public Input No. 353-NFPA 101-2024 [ New Section after 7.2.1.2.3.2 ]

### **7.2.1.2.4 Door Leaf Height.**

**Doors in the means of egress shall be not less than 80 in. (2030 mm) in clear opening height.**

#### **7.2.1.2.4.1 Minimum Clear Height.**

**Projections into the required clear opening height by door closers, overhead door stops, door frame stops, power door operators, and electromagnetic door locks shall be permitted a minimum of 78 in. (1980 mm) above the floor.**

### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101-2027_Door_Leaf_Height_20240604.pdf	PDF illustrating proposed revisions, and additional information.	

### Statement of Problem and Substantiation for Public Input

A minimum clear height for door openings, and typical door hardware which projects or encroaches into the top of the door opening is not directly addressed in NFPA 101. The last item in each section: 7.2.1.2.1.1, 7.2.1.2.1.2, 7.2.1.2.2.1, and 7.2.1.2.2.2 implies that door openings are required to have a minimum height of 6 ft. 8 in. It is common for the identified door hardware items to be installed at the top of door openings which are 6 ft. 8 in. (80 in) tall.

This proposal is consistent with ADA requirements, as illustrated in the attached pdf, from the U.S. Access Board Technical Guide: Entrances, Doors, and Gates. Source: <https://www.access-board.gov/ada/guides/chapter-4-entrances-doors-and-gates/>

### Submitter Information Verification

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**Submission Date:** Tue Jun 04 12:03:53 EDT 2024  
**Committee:** SAF-MEA

Insert new section after 7.2.1.2.3.2 (and revise title of 7.2.1.2):

**7.2.1.2 Door Leaf Width and Height.**

**7.2.1.2.4 Door Leaf Height.**

Doors in the means of egress shall be not less than 80 in. (2030 mm) in clear opening height.

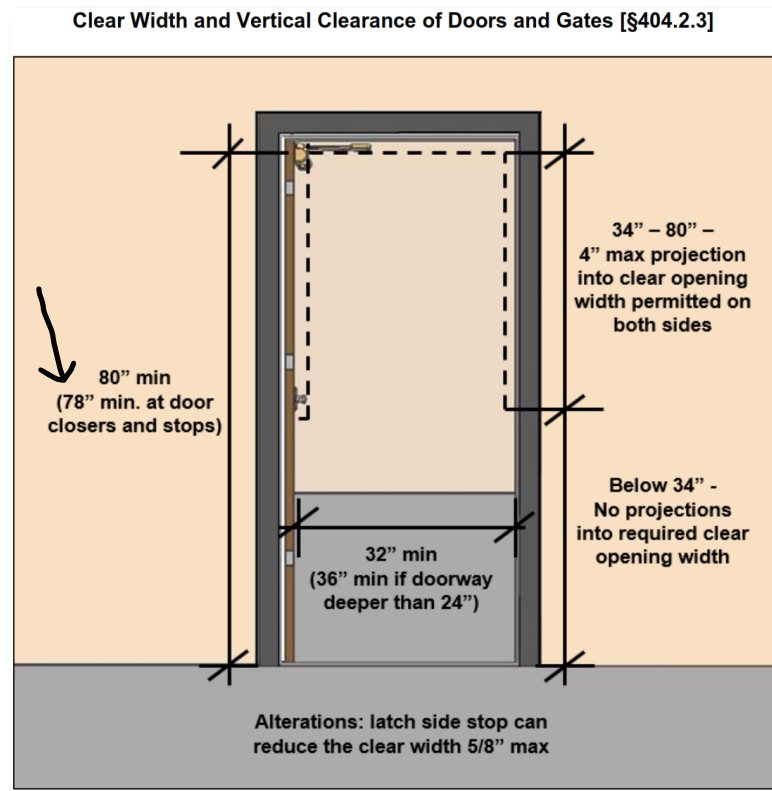
**7.2.1.2.4.1 Minimum Clear Height.**

Projections into the required clear opening height by door closers, overhead door stops, door frame stops, power door operators, and electromagnetic door locks shall be permitted a minimum of 78 in. (1980 mm) above the floor.

**Reason:**

A minimum clear height for door openings, and typical door hardware which projects or encroaches into the top of the door opening is not directly addressed in NFPA 101. The last item in each section: 7.2.1.2.1.1, 7.2.1.2.1.2, 7.2.1.2.2.1, and 7.2.1.2.2.2 implies that door openings are required to have a minimum height of 6 ft. 8 in. It is common for the identified door hardware items to be installed at the top of door openings which are 6 ft. 8 in. (80 in) tall.

This proposal is consistent with ADA requirements, as illustrated, below, from the U.S. Access Board Technical Guide: Entrances, Doors, and Gates. Source: <https://www.access-board.gov/ada/guides/chapter-4-entrances-doors-and-gates/>



Also, the title of 7.2.1.2 perhaps should be revised: **7.2.1.2 Door Leaf Width and Height.**



## Public Input No. 313-NFPA 101-2024 [ Section No. 7.2.1.4.5.2 ]

### 7.2.1.4.5.2

The forces required to fully open any door leaf manually in a means of egress shall not exceed 30 lbf (133 N) to set the leaf in motion, and 15 lbf (67 N) to open the leaf to the minimum required width, unless otherwise specified as follows:

- (1) The door opening forces for interior ~~side-hinged or pivoted swinging~~ door leaves ~~without closers~~ other than required fire door assemblies shall not exceed 5 lbf (22 N).
- (2) The door opening forces for existing door leaves in existing buildings shall not exceed 50 lbf (222 N) applied to the latch stile.
- (3) The door opening forces for horizontal-sliding door leaves in detention and correctional occupancies shall be as provided in Chapters 22 and 23.
- (4) The opening forces for power-operated door leaves shall be as provided in 7.2.1.9.

### Statement of Problem and Substantiation for Public Input

NFPA 101 currently excludes doors with closers from the 5 lbf maximum door opening force requirement. This provision conflicts with ADA requirements which does not exempt interior doors with closers from the 5 lb door opening forces requirement (other than doors required to be fire rated). Also, ADA requires interior sliding doors to comply with the 5 lb force requirement.

This proposal is intended to align NFPA 101 more closely with ADA requirements.

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**Submission Date:** Mon Jun 03 22:04:59 EDT 2024

**Committee:** SAF-MEA



## Public Input No. 271-NFPA 101-2024 [ Section No. 7.2.1.5.3.4 ]

### 7.2.1.5.3.4\*

Egress door assemblies from individual living units and guest rooms of residential occupancies, and from individual bedrooms within dwelling units of an apartment building serving as a dormitory, shall be permitted to be provided with devices, including automatic latching devices, that require not more than one additional releasing motion provided that releasing does not require simultaneous operations motions, and provided that such devices are operable from the inside without the use of a key or tool and are mounted at a height not exceeding less than 34 in. (865 mm) and not more than 48 in. (1220 mm) above the finished floor.

### Statement of Problem and Substantiation for Public Input

Colleges and universities are increasingly constructing dormitories with suite-style living arrangements with a shared space and individual bedrooms. This proposal is about permitting locking of doors to individual bedrooms within dwelling units of an apartment building serving as a dormitory. And, a few editorial suggestions in the latter part of the paragraph.

Some college and university dormitories and residence halls are designed and constructed with suite-style layouts. The residence halls at Upstate University of South Carolina are one example: [www.uscupstate.edu/campus-life/housing-and-dining/housing-floor-plans/](http://www.uscupstate.edu/campus-life/housing-and-dining/housing-floor-plans/).

Another example is Clarkson College residence hall: [www.clarksoncollege.edu/student-life/residence-life/floor-plan-layout/index](http://www.clarksoncollege.edu/student-life/residence-life/floor-plan-layout/index).

NFPA 101 considers suite-style dormitories as apartment buildings, per 28.1.1.4: Any dormitory divided into suites of rooms, with one or more bedrooms opening into a living room or study that has a door opening into a common corridor serving a number of suites, shall be classified as an apartment building.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 272-NFPA 101-2024 [Section No. A.7.2.1.5.3.4]</a>	

### Submitter Information Verification

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**Committee:** SAF-MEA





## Public Input No. 251-NFPA 101-2024 [ Section No. 7.2.1.5.3.8 ]

### 7.2.1.5.3.8 –

Two releasing motions shall be permitted in existing educational occupancies in accordance with 15.2.2.2.4 and in existing day care occupancies in accordance with 17.2.2.2.6 .

### Statement of Problem and Substantiation for Public Input

Correlation with proposed revisions in 15.2.2.2.4.1, Item 3, and 17.2.2.2.6, Item 3

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 247-NFPA 101-2024 [Section No. 15.2.2.2.4]</a>	
<a href="#">Public Input No. 249-NFPA 101-2024 [Section No. 17.2.2.2.6]</a>	
<a href="#">Public Input No. 247-NFPA 101-2024 [Section No. 15.2.2.2.4]</a>	
<a href="#">Public Input No. 249-NFPA 101-2024 [Section No. 17.2.2.2.6]</a>	

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**State:**  
**Zip:**  
**Submission Date:** Mon Jun 03 17:50:24 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 280-NFPA 101-2024 [ New Section after 7.2.1.5.5 ]

### **7.2.1.5.6**

Where a door has an access control system affecting ingress, or where an electrical system monitors or records egress activity, the locking system on the egress side of the door shall comply with one of the following:

- (1) Be readily openable from the egress side without the use of a key, tool, special knowledge or effort.
- (2) A special locking arrangement of 7.2.1.6.
- (3) 18.2.2.2.5 for new health care occupancies.
- (4) 19.2.2.2.5 for existing health care occupancies.
- (5) 32.2.2.5.5.3 or 32.3.2.2.2(6) for new residential board and care occupancies.
- (6) 33.2.2.5.5.3 or 33.3.2.2.2(6) for existing residential board and care occupancies.
- (7) Lockups in accordance with 22.4.6 or 23.4.6.

### **Statement of Problem and Substantiation for Public Input**

Many doors have access control systems (ingress control systems) which are used to restrict access to a building, space, or room. Most access control systems have no effect on egress, but our members are finding that some code officials are attempting to enforce something in the code regarding access control systems. Additionally, on the egress side of the door, building owners frequently want to electronically monitor egress activity.

This proposal requires access control systems and requires electrical systems which monitor or record egress activity to “play nice” with the egress functions of the door.

The locking systems in proposed items 3 through 6 are permitted for the clinical needs of patients or residents, or where patients or residents pose a security threat.

### **Submitter Information Verification**

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**Submittal Date:** Mon Jun 03 20:08:57 EDT 2024  
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## Public Input No. 282-NFPA 101-2024 [ Section No. 7.2.1.5.7 ]

### 7.2.1.5.7\* Stair Enclosure Re-entry.

Every door assembly in a stair enclosure serving more than four stories, unless permitted by 7.2.1.5.7.2, shall meet one of the following conditions:

- (1) Re-entry from the stair enclosure to the interior of the building shall be provided.
- (2) An automatic release shall be provided that meets all of the following:
  - (a) The automatic release shall unlock all stair enclosure door assemblies to allow re-entry from the stair enclosure to the interior of the building .
  - (b) The automatic release shall be actuated with the initiation of the building fire alarm system.
  - (c) The automatic release shall unlock the stair enclosure door to allow re-entry upon loss of power to the automatic release or to the electrical system controlling the automatic release.
  - (d) The automatic release, for new installations, shall unlock stair enclosure door assemblies upon a signal from the fire command center, central control point, or other approved location.
  - (e)\* Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.
- (3) Selected re-entry shall be provided in accordance with 7.2.1.5.7.1.

#### 7.2.1.5.7.1

Door assemblies on stair enclosures shall be permitted to be equipped with hardware that prevents re-entry into the interior of the building, provided that all of the following criteria are met:

- (1) There shall be not less than two levels where it is possible to leave the stair enclosure to access another exit.
- (2) There shall be not more than four stories intervening between stories where it is possible to leave the stair enclosure to access another exit.
- (3) Re-entry shall be possible on the top story or next-to-top story served by the stair enclosure, and such story shall allow access to another exit.
- (4) Door assemblies allowing re-entry shall be identified as such on the stair side of the door leaf.
- (5) Door assemblies not allowing re-entry shall be provided with a sign on the stair side indicating the location of the nearest door opening, in each direction of travel, that allows re-entry or exit.

#### 7.2.1.5.7.2

The requirements of 7.2.1.5.7, except as provided in 7.2.1.5.7.3, shall not apply to the following:

- (1) Existing installations in buildings that are not high-rise buildings as permitted in Chapters 11 through 43
- (2) Existing installations in high-rise buildings as permitted in Chapters 11 through 43 where the occupancy is within a building protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7
- (3) Existing approved stairwell re-entry installations as permitted by Chapters 11 through 43
- (4) Stair enclosures serving a building permitted to have a single exit in accordance with Chapters 11 through 43
- (5) Stair enclosures in health care occupancies where otherwise provided in Chapter 18
- (6) Stair enclosures in detention and correctional occupancies where otherwise provided in Chapter 22
- (7) Stair enclosure discharge doors.

#### 7.2.1.5.7.3

When the provisions of 7.2.1.5.7.2 are used, signage on the stair door leaves shall be required as follows:

- (1) Door assemblies allowing re-entry shall be identified as such on the stair side of the door leaf.
- (2) Door assemblies not allowing re-entry shall be provided with a sign on the stair side indicating the location of the nearest door opening, in each direction of travel, that allows re-entry or exit.

### Statement of Problem and Substantiation for Public Input

In 7.2.1.5.7, the revisions in (2)(a) are intended to more clearly communicate the intent.

Added (2)(c) is to require the door locking hardware to be "fail safe" by unlocking to permit re-entry upon power loss to the automatic release or to the electrical system controlling the release.

Added (2)(d), for new installations, requires the ability to trigger the automatic release from a central location – the fire command center, and central control point, or other approved location.

In 7.2.1.5.7.2, we suggest inserting new Item 7 to clearly communicate in this section that requirements of 7.2.1.5.7 are not applicable to stair enclosure discharge doors.

### Submitter Information Verification

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**Committee:** SAF-MEA



## Public Input No. 286-NFPA 101-2024 [ Sections 7.2.1.5.9, 7.2.1.5.10 ]

### Sections 7.2.1.5.9, 7.2.1.5.10

#### 7.2.1.5.9

Where pairs of door leaves are required in a means of egress, one of the following criteria shall be met:

- (1) Each leaf of the pair shall be provided with a releasing device that does not depend on the release of one leaf before the other.
- (2) Approved automatic flush bolts shall be used and arranged such that both of the following criteria are met:
  - (3) The door leaf equipped with the automatic flush bolts shall have no doorknob or surface-mounted hardware on the egress side of the door.
  - (4) Unlatching of any leaf shall not require more than one

operation

- (a) motion

#### 7.2.1.5.10\*

On doors required to release all latching and all locking devices of the door leaf with not more than one releasing motion in accordance with 7.2.1.5.3.2, devices shall not be installed in connection with any door assembly where such devices prevent or are intended to prevent the free use of the leaf for purposes of egress, unless otherwise provided in 7.2.1.6.1 and 7.2.1.6.4, or in lockups in accordance with 22.4.6 or 23.4.6, or provided for in 18.2.2.2.5 for new health care occupancies, 19.2.2.2.5 for existing health care occupancies, 32.2.2.5.3 or 32.3.2.2.2(6) for new residential board and care occupancies, or 33.2.2.5.3 or 33.3.2.2.2(6) for existing residential board and care occupancies.

### Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
NFPA_101-2027_Editorial_One_Motion_in_7.2.1.5.9_and_Leaf_Not_Provide_Free_Egress_20240603.pdf	PDF of PI 286 illustrating proposed revisions.

### Statement of Problem and Substantiation for Public Input

The revision in 7.2.1.5.9.(2)(b) is editorial, and consistent with similar language in 101.

The revisions in 7.2.1.5.10, and the related Annex note, are intended to clarify the requirements in this section. Section 7.2.1.6 has four special locking arrangements. Only two of those locking arrangements permit preventing the free use of a door leaf for egress: 7.2.1.6.1 delayed egress, and 7.2.1.6.4 elevator lobby exit access door locking. In lockups in accordance with either of the two identified sections are permitted to prevent the free use of a door leaf for egress. The locking system in 18.2.2.2.5, and the locking systems in the subsequent identified sections, control egress and are variants of controlled egress locking systems.

The attached pdf clearly illustrates the proposed revisions.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 287-NFPA 101-2024 [Section No. A.7.2.1.5.10]</a>	
<a href="#">Public Input No. 287-NFPA 101-2024 [Section No. A.7.2.1.5.10]</a>	

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**Committee:** SAF-MEA

NFPA 101-2027 Editorial One Motion in 7.2.1.5.9, and Leaf Provide Free Egress 7.2.1.5.10  
Revised June 3, 2024  
John Woestman, BHMA

#### **7.2.1.5.9**

Where pairs of door leaves are required in a means of egress, one of the following criteria shall be met:

- (1) Each leaf of the pair shall be provided with a releasing device that does not depend on the release of one leaf before the other.
- (2) Approved automatic flush bolts shall be used and arranged such that both of the following criteria are met:
  - (a) The door leaf equipped with the automatic flush bolts shall have no doorknob or surface-mounted hardware on the egress side of the door.
  - (b) Unlatching of any leaf shall not require more than one ~~operation~~ motion.

#### **7.2.1.5.10 \***

On doors required to release all latching and all locking devices of the door leaf with not more than one releasing motion in accordance with 7.2.1.5.3.2, devices shall not be installed in connection with any door assembly where such devices prevent or are intended to prevent the free use of the leaf for purposes of egress, unless otherwise provided in 7.2.1.6 7.2.1.6.1 and 7.2.1.6.4, or in lockups in accordance with 22.4.6 or 23.4.6, or provided for in 18.2.2.2.5 for new health care occupancies, 19.2.2.2.5 for existing health care occupancies, 32.2.2.5.5.3 or 32.3.2.2.2(6) for new residential board and care occupancies, or 33.2.2.5.5.3 or 33.3.2.2.2(6) for existing residential board and care occupancies.

#### **A.7.2.1.5.10**

Examples of devices prohibited by this requirement include locks, padlocks, hasps, bars, chains, or combinations thereof. The electrical locking system in 7.2.1.6.1 is intended to delay free egress. The locking system in 7.2.1.6.4 is intended to prevent exit access from an elevator lobby through tenant spaces except during an emergency situation. The locking systems identified in health care occupancies and board and care occupancies are permitted because of the clinical needs or special needs of the occupants.

#### **Reason:**

The revision in 7.2.1.5.9.(2)(b) is editorial, and consistent with similar language in 101.

The revisions in 7.2.1.5.10, and the related Annex note, are intended to clarify the requirements in this section. Section 7.2.1.6 has four special locking arrangements. Only two of those locking arrangements permit preventing the free use of a door leaf for egress: 7.2.1.6.1 delayed egress, and 7.2.1.6.4 elevator lobby exit access door locking. In lockups in accordance with either of the two identified sections are permitted to prevent the free use of a door leaf for egress. The locking system in 18.2.2.2.5, and the locking systems in the subsequent identified sections, control egress and are variants of controlled egress locking systems.



## Public Input No. 274-NFPA 101-2024 [ New Section after 7.2.1.5.10 ]

### **7.2.1.5.11 Self or positive latching**

Door leaves required to be self-latching or positive latching shall comply with one of the following:

- (1) Are self-latching or positive latching.
- (2) Are self-closing or automatic-closing and become self-latching or positive latching upon operation of approved smoke detectors installed in such a way as to detect smoke on either side of the door opening in accordance with the provisions of NFPA 72.
- (3) Comply with 7.2.1.9.2 for powered door leaves.

### **Statement of Problem and Substantiation for Public Input**

NFPA 101 requires many doors to be self-latching or positive latching. Most of these doors are required to comply with NFPA 80, but not all.

In health care facilities, electric latch retraction hardware is often used on fire door assemblies to allow the doors to function as push/pull operation under normal conditions and latch automatically if there is a fire. When a door in a hospital or nursing home is considered a “corridor door” as addressed in the health care chapters, the door is not required to be fire rated but is required to have positive-latching hardware. A common example of this application is a pair of non-fire-rated doors serving as the entrance to a suite. These doors are typically self-closing or automatic-closing (although this is not technically required by NFPA 101 for corridor doors), and the code requires the doors to have positive-latching hardware.

NFPA 80, in Section 6.4.4.4.3, permits latching arrangements on fire doors that do not latch in the normal mode, if the door automatically becomes positively latched during a fire by means of a fail safe device activated by an automatic fire detector. This code change proposal explicitly recognizes in NFPA 101 this option in NFPA 80, and permits this hardware to be used on non-fire-rated doors that are required to have positive-latching hardware.

The proposed language is adopted, in part, from the current language in Section 7.2.1.9.2 Items 4 and 5, and further modified to require the doors to be self-closing or automatic closing when equipped with hardware that becomes positive latching upon smoke detection. This last requirement helps to ensure that the door will be, or go, to the closed position and latch.

### **Related Public Inputs for This Document**

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 275-NFPA 101-2024 [New Section after A.7.2.1.5.10]</u>	

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**Submission Date:** Mon Jun 03 19:42:12 EDT 2024  
**Committee:** SAF-MEA





## Public Input No. 281-NFPA 101-2024 [ Section No. 7.2.1.6.1 ]

### 7.2.1.6.1\* Delayed-Egress Electrical Locking Systems.

#### 7.2.1.6.1.1

Approved, delayed-egress electrical locking systems shall be permitted to be installed on door assemblies serving low- and ordinary-hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with Section 9.6 or an approved, supervised automatic sprinkler system in accordance with Section 9.7, and where permitted in Chapters 11 through 43, provided that all of the following criteria are met:

- (1) The delay of the delayed-egress electrical locking system shall deactivate allowing unobstructed egress upon actuation of one of the following:
  - (2) Approved, supervised automatic sprinkler system in accordance with Section 9.7
  - (3) Not more than one heat detector of an approved, supervised automatic fire detection system in accordance with Section 9.6
  - (4) Not more than two smoke detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6
- (5) The delay of the delayed-egress electrical locking system shall deactivate allowing unobstructed egress upon loss of power controlling the lock or locking mechanism.
- (6)\* An irreversible process shall release the electrical lock in the direction of egress within 15 seconds, or 30 seconds where approved by the authority having jurisdiction, upon application of a force to the release device required in 7.2.1.5.3 under all of the following conditions:
  - (7) The force shall not be required to exceed 15 lbf (67 N).
  - (8) The force shall not be required to be continuously applied for more than 3 seconds.
  - (9) The initiation of the release process shall activate an audible signal in the vicinity of the door opening.

Once

- (a) Resetting and rearming the  
electrical lock has been released by the application of force to the releasing device, rearming the
  - (a) lock and the delay electronics shall be by manual means only.
- (10) A readily visible, durable sign that conforms to the visual characters requirements of ICC A117.1, *Accessible and Usable Buildings and Facilities*, shall be located on the door leaf adjacent to the release device in the direction of egress, and shall read as follows:
  - (11) PUSH UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS, for doors that swing in the direction of egress travel
  - (12) PULL UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS, for doors that swing against the direction of egress travel
- (13) The egress side of doors equipped with delayed-egress electrical locking systems shall be provided with emergency lighting in accordance with Section 7.9.
- (14)\* Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.

#### 7.2.1.6.1.2

The provisions of 7.2.1.6.2 for sensor-release of electrical locking systems and 7.2.1.6.3 for door hardware release of electrically locked egress door assemblies shall not apply to door assemblies with delayed-egress electrical locking systems.

### Additional Proposed Changes

File Name

Description

Approved

NFPA\_101-2027\_Delayed\_Egress\_Locking\_Systems\_Rearming\_20240603.pdf

PDF of PI 281  
illustrating proposed  
revisions are only in  
7.2.1.6.1.1(3)(d)

### Statement of Problem and Substantiation for Public Input

The last sentence of Item 3 is typically interpreted to require the delay electronics to be rearmed after the delay of the delayed egress locking system has completed.

Examining the current language, it has explicit requirements for rearming the locking system once the delay has completed, but, this sentence doesn't explicitly permit, or prohibit, rearming the delay electronics while the delay is underway. From a code perspective, if it's not prohibited, it's permitted. If this last sentence of Item 4 is interpreted that the delay electronics are not prohibited from being rearmed while the delay is underway, then it could be further interpreted the rearming could be executed by other than manual means only.

Rearming the delayed egress locking system, after the delay has deactivated, by manual means only communicates the intent that an authorized person, typically an employee or staff person, is required to physically be at the door to investigate what triggered the activation of the delayed egress locking system and to ensure that it is safe to re-set the delay.

With these thoughts in mind, the perspective from which the revisions to the last sentence of Item 3 are written: With a person at the delayed egress door to reset and rearm the locking system manually, and to ensure it's safe to do so, there's little, if any, difference if the delayed egress locking system is reset and rearmed while the delay is underway, or the locking system is reset and rearmed after the delay has completed. In other words, there's little, if any, benefit to be gained if the locking system may be rearmed only after the delay has completed, compared to permitting rearming the locking system at any time after the delay has been initiated, assuming the rearming is required to be by manual means only (a person physically is at the door).

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**Committee:** SAF-MEA

#### **7.2.1.6.1 \* Delayed-Egress Electrical Locking Systems.**

##### **7.2.1.6.1.1**

Approved, delayed-egress electrical locking systems shall be permitted to be installed on door assemblies serving low- and ordinary-hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with Section 9.6 or an approved, supervised automatic sprinkler system in accordance with Section 9.7, and where permitted in Chapters 11 through 43, provided that all of the following criteria are met:

- (1) The delay of the delayed-egress electrical locking system shall deactivate allowing unobstructed egress upon actuation of one of the following:
  - (a) Approved, supervised automatic sprinkler system in accordance with Section 9.7
  - (b) Not more than one heat detector of an approved, supervised automatic fire detection system in accordance with Section 9.6
  - (c) Not more than two smoke detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6
- (2) The delay of the delayed-egress electrical locking system shall deactivate allowing unobstructed egress upon loss of power controlling the lock or locking mechanism.
- (3) An irreversible process shall release the electrical lock in the direction of egress within 15 seconds, or 30 seconds where approved by the authority having jurisdiction, upon application of a force to the release device required in 7.2.1.5.3 under all of the following conditions:
  - (a) The force shall not be required to exceed 15 lbf (67 N).
  - (b) The force shall not be required to be continuously applied for more than 3 seconds.
  - (c) The initiation of the release process shall activate an audible signal in the vicinity of the door opening.
  - (d) ~~Once the electrical lock has been released by the application of force to the releasing device,~~ Resetting and rearming the lock and the delay electronics shall be by manual means only.
- (4) A readily visible, durable sign that conforms to the visual characters requirements of ICC A117.1, Accessible and Usable Buildings and Facilities, shall be located on the door leaf adjacent to the release device in the direction of egress, and shall read as follows:
  - (a) PUSH UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS, for doors that swing in the direction of egress travel
  - (b) PULL UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS, for doors that swing against the direction of egress travel
- (5) The egress side of doors equipped with delayed-egress electrical locking systems shall be provided with emergency lighting in accordance with Section 7.9.
- (6) Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, Access Control System Units, or UL 1034, Burglary-Resistant Electric Locking Mechanisms.

##### **7.2.1.6.1.2**

The provisions of 7.2.1.6.2 for sensor-release of electrical locking systems and 7.2.1.6.3 for door hardware release of electrically locked egress door assemblies shall not apply to door assemblies with delayed-egress electrical locking systems.

#### **Reason**

The last sentence of Item 3 is typically interpreted to require the delay electronics to be rearmed after the delay of the delayed egress locking system has completed.

Examining the current language, it has explicit requirements for rearming the locking system once the delay has completed, but, this sentence doesn't explicitly permit, or prohibit, rearming the delay electronics while the delay is underway. From a code perspective, if it's not prohibited, it's permitted. If this last sentence of Item 4 is interpreted that the delay electronics are not prohibited from being rearmed while the delay is underway, then it could be further interpreted the rearming could be executed by other than manual means only.

Rearming the delayed egress locking system, after the delay has deactivated, by manual means only communicates the intent that an authorized person, typically an employee or staff person, is required to physically be at the door to investigate what triggered the activation of the delayed egress locking system and to ensure that it is safe to re-set the delay.

With these thoughts in mind, the perspective from which the revisions to the last sentence of Item 3 are written: With a person at the delayed egress door to reset and rearm the locking system manually, and to ensure it's safe to do so, there's little, if any, difference if the delayed egress locking system is reset and rearmed while the delay is underway, or the locking system is reset and rearmed after the delay has completed. In other words, there's little, if any, benefit to be gained if the locking system may be rearmed only after the delay has completed, compared to permitting rearming the locking system at any time after the delay has been initiated, assuming the rearming is required to be by manual means only (a person physically is at the door).



## Public Input No. 343-NFPA 101-2024 [ Section No. 7.2.1.6.1.1 ]

### 7.2.1.6.1.1

Approved, delayed-egress electrical locking systems shall be permitted to be installed on door assemblies serving low- and ordinary-hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with Section 9.6 or an approved, supervised automatic sprinkler system in accordance with Section 9.7, and where permitted in Chapters 11 through 43, provided that all of the following criteria are met:

(1) The delay of the delayed-egress electrical locking system shall deactivate allowing unobstructed egress upon actuation of one of the following:

(2) Approved, supervised automatic sprinkler system in accordance with Section 9.7

Not

(a) One or more

~~than one~~

(a) heat

~~detector~~

(a) detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6

Not

(a) Two or more

~~than two~~

(a) smoke detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6

(3) The delay of the delayed-egress electrical locking system shall deactivate allowing unobstructed egress upon loss of power controlling the lock or locking mechanism.

(4)\* An irreversible process shall release the electrical lock in the direction of egress within 15 seconds, or 30 seconds where approved by the authority having jurisdiction, upon application of a force to the release device required in 7.2.1.5.3 under all of the following conditions:

(5) The force shall not be required to exceed 15 lbf (67 N).

(6) The force shall not be required to be continuously applied for more than 3 seconds.

(7) The initiation of the release process shall activate an audible signal in the vicinity of the door opening.

(8) Once the electrical lock has been released by the application of force to the releasing device, rearming the delay electronics shall be by manual means only.

(9)\* A readily visible, durable sign that conforms to the visual characters requirements of ICC A117.1, *Accessible and Usable Buildings and Facilities*, shall be located on the door leaf adjacent to the release device in the direction of egress, and shall read as follows:

(10) PUSH UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS, for doors that swing in the direction of egress travel

(11) PULL UNTIL ALARM SOUNDS, DOOR CAN BE OPENED IN 15 SECONDS, for doors that swing against the direction of egress travel

(12) The egress side of doors equipped with delayed-egress electrical locking systems shall be provided with emergency lighting in accordance with Section 7.9.

(13) Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.

### Statement of Problem and Substantiation for Public Input

7.2.1.6.1.1 (1)(b) says "Not more than one" and 7.2.1.6.1.1 (1)(c) says "Not more than two" taken literally this means that if

two or more heat detectors or 3 or more smoke detectors are activated the delayed egress would not deactivate. I believe the intent was that the delayed-egress system would deactivate if one or more heat detectors or if two or more smoke detectors have activated,

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**Submittal Date:** Tue Jun 04 08:31:41 EDT 2024

**Committee:** SAF-MEA



**Public Input No. 5-NFPA 101-2024 [ Section No. 7.2.1.6.2.1 ]**

A large, empty rectangular box with a thin border, intended for public input or comments.

**7.2.1.6.2.1**

\* Where permitted in Chapters 11 through 43, door assemblies in the means of egress

shall be permitted to be equipped with sensor-release electrical locking system

locking system hardware provided that all of the following

following criteria are met:

(1) A sensor shall be provided on the

egress

(1) egress side,

arranged to electrically

(1) arranged to electrically unlock the door leaf in the direction of

egress

(1) egress upon detection of an

approaching

(1) approaching occupant.

(2) Door leaves shall

automatically

(1) automatically electrically unlock in the direction of

egress

(1) egress upon loss of power to the sensor or to the part of the

locking system that electrically

(1) locking system that electrically locks the door leaves.

(2) Door locks shall be

arranged to electrically

(1) arranged to electrically unlock in the direction of

egress

(1) egress from a manual release device

complying

(1) or contactless sensor complying with all of the

following

(1) following criteria:

(2) The manual release device or contactless sensor shall be located on the

egress

(1)

(a) egress side,

40 in

(1)

(a) 40 in to

48 in



(1)

(a) 48 in . (

1015 mm

(1)

(a) 1015 mm to

1220 mm

(1)

(a) 1220 mm )

vertically

(1)

(a) vertical y above the floor, and within

60 in

(1)

(a) 60 in . (

1525 mm

(1)

(a)

1525 mm

1525 mm ) of the secured door

openings

openings , except as otherwise permitted

by

by 7.2.1.6.2.1 (3)(

b

c )

(1)

(a) The requirement of 7.2.1.6.2.1 (3)( a) to locate the manual release device or contactless sensor  
within

60 in

(1)

(a) 60 in . (

1525 mm

(1)

(a) 1525 mm ) of the secured door

opening

(1)

(a) opening shall not

apply

(1)

(a) apply to previously approved existing installations.

(b) The manual release device , where provided , shall be

readily

(1)

- (a) readily accessible and clearly identified by a sign
- (1)
  - (a) sign that reads as follows: PUSH TO EXIT.
  - (b) \* The contactless sensor, where provided, shall be readily accessible and clearly identified by a sign that reads as follows: WAVE TO EXIT
  - (c) When operated, the manual release device or contactless sensor shall result in direct interruption of power
  - (1)
    - (a) power to the electrical lock — independent of the locking system
    - (1)
      - (a) locking system electronics — and the lock shall remain unlocked for not less than 30 seconds.Activation of the building fire-protective signaling system
      - (1)
        - (a) 30 seconds.
        - (b) \* The contactless sensor referenced in 7.2.1.6.2.1(3) that is used to automatically unlock the doors in the direction of egress shall be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.1.(2).
- (2) Activation of the building fire-protective signaling system, if provided, shall automatically
- (1) automatically electrically unlock the door leaves in the direction of egress
- (1) egress, and the door leaves shall remain electrically
- (1) electrically unlocked until the fire-protective signaling system
- (1) signaling system has been manually
- (1) manually reset.
- (2) The activation of manual fire alarm boxes that activate the building
- (1) building fire-protective signaling system
- (1) signaling system specified in 7.2.1.6.2.1(4) shall not be required to unlock the door leaves.
- (2) Activation of the building
- (1) building automatic sprinkler or fire detection system
- (1) system, if provided, shall automatically electrically
- (1) automatically electrically unlock the door leaves in the direction of egress

(1) egress, and the door leaves shall remain

electrically

(1) electrically, unlocked until the fire-protective

signaling system

(1) signaling system has been

manually

(1) manually reset.

(2) The

egress

(1) egress, side of sensor-release

electrically

(1) electrically, locked

egress

(1) egress doors, other than

existing

(1) existing sensor-release

electrically

(1) electrically, locked

egress

(1) egress doors, shall be provided with

emergency lighting

(1) emergency lighting in accordance with

Section-

(1)

Section - Section

7.9 -

\* ~~Door electromechanical or electromagnetic locking hardware~~

(1) Hardware for new installations shall be listed in accordance with

UL 294,

(1) ANSI/UL 294, Standard for Access Control

System Units, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*

(1) System Units.

## Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
PC70-101_SAF-MEA.pdf	101_PC#70	

## Statement of Problem and Substantiation for Public Input

NOTE: This Public Input appeared as "Reject but Hold" in Public Comment No. 70 of the (A2023) Second Draft Report for NFPA 101 and per the Regs. at 4.4.8.3.1 and needs to be reconsidered by the TC for the next edition of the document.

The use of contactless sensors to open doors is becoming more prevalent due to Covid and other concerns about the spread of infection, especially in health care settings. Contactless sensors (e.g., "wave to open" devices) can perform similarly to manual "push to exit" devices and should therefore be permitted as a substitute for "push to exit" devices, but only if they are listed to UL 294 and only if they are configured to be independent of the (overhead motion) sensors used to unlock the door

upon occupant approach such that a single failure can't result in both types of sensors failing simultaneously.

To avoid confusion, annex material is added to discuss the differences between the existing (overhead motion) sensors used to unlock doors upon occupant approach and the proposed contactless sensors to unlock doors in the event the (overhead motion) sensors fail. Text is also included that clarifies that contactless sensors can currently be used, but only as a supplement to "push to exit" devices.

### Submitter Information Verification

**Submitter Full Name:**

**Organization:** Holds

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Mon Jan 15 14:50:44 EST 2024

**Committee:** SAF-MEA



## Public Comment No. 70-NFPA 101-2022 [ Section No. 7.2.1.6.2.1 ]

### 7.2.1.6.2.1

—

\* Where permitted in Chapters 11 through 43, door assemblies in the means of egress shall be permitted to be equipped with sensor-release electrical locking system hardware provided that all of the following criteria are met:

- (1) A sensor shall be provided on the egress side, arranged to electrically unlock the door leaf in the direction of egress upon detection of an approaching occupant.
- (2) Door leaves shall automatically electrically unlock in the direction of egress upon loss of power to the sensor or to the part of the locking system that electrically locks the door leaves.
- (3) Door locks shall be arranged to electrically unlock in the direction of egress from a manual release device or contactless sensor complying with all of the following criteria:
  - (a) The manual release device or contactless sensor shall be located on the egress side, 40 in. to 48 in. (1015 mm to 1220 mm) vertically above the floor, and within 60 in. (1525 mm)

1525 mm

1525 mm) of the secured door openings, except as otherwise permitted by 7.2.1.6.2.1 (3)(

b

c).

- (b) The requirement of 7.2.1.6.2.1 (3)(a) to locate the manual release device or contactless sensor within 60 in. (1525 mm) of the secured door opening shall not apply to previously approved existing installations.
- (c) The manual release device, where provided, shall be readily accessible and clearly identified by a sign that reads as follows: PUSH TO EXIT.
- (d)\* The contactless sensor, where provided, shall be readily accessible and clearly identified by a sign that reads as follows: WAVE TO EXIT
- (e) When operated, the manual release device or contactless sensor shall result in direct interruption of power to the electrical lock — independent of the locking system electronics — and the lock shall remain unlocked for not less than 30 seconds.
- (f)\* The contactless sensor referenced in 7.2.1.6.2.1(3) that is used to automatically unlock the doors in the direction of egress shall be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.1.(2).
- (4) Activation of the building fire-protective signaling system, if provided, shall automatically electrically unlock the door leaves in the direction of egress, and the door leaves shall remain electrically unlocked until the fire-protective signaling system has been manually reset.
- (5) The activation of manual fire alarm boxes that activate the building fire-protective signaling system specified in 7.2.1.6.2.1 (4) shall not be required to unlock the door leaves.
- (6) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically electrically unlock the door leaves in the direction of egress, and the door leaves shall remain electrically unlocked until the fire-protective signaling system has been manually reset.
- (7) The egress side of sensor-release electrically locked egress doors, other than existing sensor-release electrically locked egress doors, shall be provided with emergency lighting in accordance with

Section-

Section 7.9 .

- (8) Hardware for new installations shall be listed in accordance with ANSI/ UL 294, Standard for Access Control System Units .

### Statement of Problem and Substantiation for Public Comment

The use of contactless sensors to open doors is becoming more prevalent due to Covid and other concerns about the

spread of infection, especially in health care settings. Contactless sensors (e.g., “wave to open” devices) can perform similarly to manual “push to exit” devices and should therefore be permitted as a substitute for “push to exit” devices, but only if they are listed to UL 294 and only if they are configured to be independent of the (overhead motion) sensors used to unlock the door upon occupant approach such that a single failure can’t result in both types of sensors failing simultaneously.

To avoid confusion, annex material is added to discuss the differences between the existing (overhead motion) sensors used to unlock doors upon occupant approach and the proposed contactless sensors to unlock doors in the event the (overhead motion) sensors fail. Text is also included that clarifies that contactless sensors can currently be used, but only as a supplement to “push to exit” devices.

**Related Item**

- A.7.2.1.6.2 text

## Submitter Information Verification

**Submitter Full Name:** Joshua Elvove

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**Street Address:**

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**State:**

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**Submittal Date:** Fri Apr 15 00:23:13 EDT 2022

**Committee:** SAF-MEA

## Committee Statement

**Committee Action:** Rejected but held

**Resolution:** The proposed revision is new material. The inclusion of common terminology would be advantageous during the next revision cycle.



## Public Input No. 75-NFPA 101-2024 [ Section No. 7.2.1.6.2.1 ]

### 7.2.1.6.2.1\*

Where permitted in Chapters 11 through 43, door assemblies in the means of egress shall be permitted to be equipped with sensor-release electrical locking system hardware provided that all of the following criteria are met:

- (1) A sensor shall be provided on the egress side, arranged to electrically unlock the door leaf in the direction of egress upon detection of an approaching occupant.
- (2) Door leaves shall automatically electrically unlock in the direction of egress upon loss of power to the sensor or to the part of the locking system that electrically locks the door leaves.
- (3) Door locks shall be arranged to electrically unlock in the direction of egress from a manual release device or contactless sensor complying with all of the following criteria:
  - (4) The manual release device or contactless sensor shall be located on the egress side, 40 in. to 48 in. (1015 mm to 1220 mm) vertically above the floor, and within 60 in. (1525 mm) of the secured door openings, except as otherwise permitted by 7.2.1.6.2.1 (3)(b).
  - (5) The requirement of 7.2.1.6.2.1(3)(a) to locate the manual release device within 60 in. (1525 mm) of the secured door opening shall not apply to previously approved existing installations.
  - (6) The manual release device, where provided, shall be readily accessible and clearly identified by a sign that reads as follows: PUSH TO EXIT.
  - (7) \* The contactless sensor, where provided, shall be readily accessible and clearly identified by a sign that reads as follows WAVE TO EXIT
  - (8) When operated, the manual release device or contactless sensor shall result in direct interruption of power to the electrical lock — independent of the locking system electronics — and the lock shall remain unlocked for not less than 30 seconds.
  - (9) \* The contactless sensor referenced in 7.2.1.6.2.1(3) that is used to automatically unlock the doors in the direction of egress shall be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.1.(2).
- (10) Activation of the building fire-protective signaling system, if provided, shall automatically electrically unlock the door leaves in the direction of egress, and the door leaves shall remain electrically unlocked until the fire-protective signaling system has been manually reset.
- (11) The activation of manual fire alarm boxes that activate the building fire-protective signaling system specified in 7.2.1.6.2.1(4) shall not be required to unlock the door leaves.
- (12) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically electrically unlock the door leaves in the direction of egress, and the door leaves shall remain electrically unlocked until the fire-protective signaling system has been manually reset.
- (13) The egress side of sensor-release electrically locked egress doors, other than existing sensor-release electrically locked egress doors, shall be provided with emergency lighting in accordance with Section 7.9.
- (14\*) Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.

### Statement of Problem and Substantiation for Public Input

The use of contactless sensors to open doors is becoming more prevalent due to Covid and other concerns about the spread of infection, especially in health care settings. Contactless sensors (e.g., “wave to open” devices) can perform similarly to manual “push to exit” devices and should therefore be permitted as a substitute for “push to exit” devices, but only if they are listed to UL 294 and only if they are configured to be independent of the (overhead motion) sensors used to unlock the door upon occupant approach such that a single failure can’t result in both types of sensors failing simultaneously.

To avoid confusion, annex material is added to discuss the differences between the existing (overhead motion) sensors used to unlock doors upon occupant approach and the proposed contactless sensors to unlock doors in the event the (overhead motion) sensors fail. Text is also included that clarifies that contactless sensors can currently be used, but only as a supplement to “push to exit” devices

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 76-NFPA 101-2024 [New Section after A.7.2.1.6.2]</a>	

[Public Input No. 77-NFPA 101-2024 \[New Section after A.7.2.1.6.2\]](#)

### Submitter Information Verification

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**Submittal Date:** Mon Apr 22 21:23:46 EDT 2024  
**Committee:** SAF-MEA





## Public Input No. 298-NFPA 101-2024 [ New Section after 7.2.1.6.4 ]

### 7.2.1.6.5 Interlocked-Door Vestibule

Where permitted in chapters 11 through 43 with low- and ordinary-hazard contents, an interlocked-door vestibule shall be permitted in the means of egress where there are provisions for continuous and unobstructed travel through the interlocked-door vestibule during an emergency egress condition. Interlocked-door vestibules shall comply with all of the following:

- (1) The building is protected throughout by an approved automatic sprinkler system in accordance with 9.7, or the area served by the interlocked-door vestibule is protected by an approved automatic smoke detection system in accordance with Section 9.6.
- (2) Interlock override switches, which disable the interlocks of the doors of the interlocked-door vestibule for not less than 30 seconds, shall be provided on the egress side of each door of the interlocked-door vestibule. Where the interlocked-door vestibule is installed to impede egress for security reasons, the override switches shall be permitted to be moved to an alternative location by approval of the Authority Having Jurisdiction.
- (3) The interlock override switches shall be within 48 in. (1220 mm) of door and between 34 in. (865 mm) and 48 in. (1220 mm) above the floor.
- (4) The operation of each interlock override switch shall result in direct interruption of power to the interlock.
- (5) Signage shall be provided at each override switch describing its operation.
- (6) Upon loss of power to the interlock function of the doors of the interlocked-door vestibule, the interlock function shall be disabled.
- (7) The interlocks of the doors of the interlocked-door vestibule shall deactivate upon activation of the automatic sprinkler system or the automatic smoke detection system required by Item 2.
- (8) Doors of an interlocked-door vestibule shall be self-closing.
- (9) Doors of an interlocked-door vestibule shall swing in the direction of egress travel except for powered doors in accordance with Section 7.2.1.9.
- (10) The egress path shall not pass through more than one interlocked-door vestibule.
- (11) Door electrical locking hardware for new installations shall be listed in accordance with UL 294, Access Control System Units, or UL 1034, Burglary-Resistant Locking Mechanisms.
- (12) The fire department with responsibility for responding to a building that contains an interlocked-door vestibule shall be notified of the presence of the interlocked-door vestibule.

### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101-2027_Special_Locking_Arrangements_Interlocked_Door_Vestibule_Def_and_Ch_7_20240603.pdf	PDF of definition, requirements, and explanation of proposed interlocked-door vestibule.	

### Statement of Problem and Substantiation for Public Input

This proposal, along with complementary proposals in Chapters 18, 19, 20, 21, 36, 37, 38, 39, 40, and 42 offer the opportunity for interlocked-door vestibules in these occupancies.

Interlocked-door vestibules are utilized for environmental contamination control (health care; manufacturing clean rooms), controlled substance dispensing (prescription drugs and cannabis), occupant protection (health care), security reasons (money handling rooms), and other uses and applications.

This proposal addresses the egress aspects of interlocked-door vestibules. Ingress and controlling access into a building or space is not addressed by these provisions.

An occupant egressing through an interlocked-door vestibule would not be delayed at the second door in series if the first door in series is in a closed position. Conversely, if the first door is not closed, the second door would not be able to be

opened. The proposed requirements for interlock override switches, for “fail-safe” interlocks in the event of power failure, and to deactivate the interlock upon activation of the sprinkler system or smoke detection system are all intended to ensure unencumbered egress when and if needed.

An interlocked-door vestibule, which may also be known as an airlock, interlock, or man-trap, can help limit the passage of contaminants by allowing only one door to be open at a time, or controls access to and egress from an area for security reasons (such as in a data center or prescription drug dispensary). This image illustrates one of the common applications, an interlocked-door vestibule serving a clean room in a laboratory environment. Air-flow in or out is limited with normal operation as only one door may be opened at a time. In an emergency, both doors may be opened simultaneously, via the override switch beside each door.

Please see the attached pdf for illustrations of interlocked-door vestibules and additional description of their operation.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 297-NFPA 101-2024 [New Section after 3.3.165]</a>	
<a href="#">Public Input No. 299-NFPA 101-2024 [New Section after A.7.2.1.6.4.1(1)]</a>	
<a href="#">Public Input No. 297-NFPA 101-2024 [New Section after 3.3.165]</a>	
<a href="#">Public Input No. 299-NFPA 101-2024 [New Section after A.7.2.1.6.4.1(1)]</a>	
<a href="#">Public Input No. 300-NFPA 101-2024 [New Section after 18.2.5.7.4]</a>	
<a href="#">Public Input No. 301-NFPA 101-2024 [New Section after 19.2.5.7.4]</a>	
<a href="#">Public Input No. 303-NFPA 101-2024 [New Section after 20.2.5.3.2]</a>	
<a href="#">Public Input No. 304-NFPA 101-2024 [New Section after 21.2.5.3]</a>	
<a href="#">Public Input No. 305-NFPA 101-2024 [New Section after 36.2.5.11]</a>	
<a href="#">Public Input No. 306-NFPA 101-2024 [New Section after 37.2.5.11]</a>	
<a href="#">Public Input No. 307-NFPA 101-2024 [New Section after 38.2.5.3.2]</a>	
<a href="#">Public Input No. 308-NFPA 101-2024 [New Section after 39.2.5.3]</a>	
<a href="#">Public Input No. 309-NFPA 101-2024 [New Section after 40.2.5.3.2]</a>	
<a href="#">Public Input No. 310-NFPA 101-2024 [New Section after 42.2.5]</a>	

## Submitter Information Verification

**Submitter Full Name:** John Woestman  
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**Affiliation:** Builders Hardware Manufacturers Association  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Mon Jun 03 21:24:48 EDT 2024  
**Committee:** SAF-MEA

### Interlocked-Door Vestibule.

A room, space, or compartment provided with egress doors in series where only one of the doors in series is openable at a time.

#### **Reason:**

This proposed definition along with complementary proposals in 7.2.1.6.5 and Chapters 18, 19, 20, 21, 36, 37, 38, 39, 40, and 42, offer the opportunity for interlocked-door vestibules in these occupancies. Interlocked-door vestibules are utilized for environmental contamination control (health care; manufacturing clean rooms), controlled substance dispensing (prescription drugs and cannabis), occupant protection (health care), security reasons (money handling rooms), and other uses and applications.

Sally ports (security vestibule) are defined in NFPA 101 (3.3.256) and permitted in detention and correctional occupancies, sally ports are typically used as security vestibules and control egress (obviously).

Unfortunately, the term “sally port”, and its definition, is predominately reserved for uses where occupants are restrained against their will in buildings or spaces.

This proposal seeks to include requirements in NFPA 101 for interlocked-door vestibules.

## **Chapter 7 Mean of Egress**

### 7.2.1.6.5 Interlocked-Door Vestibule

Where permitted in chapters 11 through 43 with low- and ordinary-hazard contents, an interlocked-door vestibule shall be permitted in the means of egress where there are provisions for continuous and unobstructed travel through the interlocked-door vestibule during an emergency egress condition.

Interlocked-door vestibules shall comply with all of the following:

1. The building is protected throughout by an approved automatic sprinkler system in accordance with 9.7, or the area served by the interlocked-door vestibule is protected by an approved automatic smoke detection system in accordance with Section 9.6.
2. Interlock override switches, which disable the interlocks of the doors of the interlocked-door vestibule for not less than 30 seconds, shall be provided on the egress side of each door of the interlocked-door vestibule. Where the interlocked-door vestibule is installed to impede egress for security reasons, the override switches shall be permitted to be moved to an alternative location by approval of the Authority Having Jurisdiction.
3. The interlock override switches shall be within 48 in. (1220 mm) of door and between 34 in. (865 mm) and 48 in. (1220 mm) above the floor.
4. The operation of each interlock override switch shall result in direct interruption of power to the interlock.
5. Signage shall be provided at each override switch describing its operation.
6. Upon loss of power to the interlock function of the doors of the interlocked-door vestibule, the interlock function shall be disabled.
7. The interlocks of the doors of the interlocked-door vestibule shall deactivate upon activation of the automatic sprinkler system or the automatic smoke detection system required by Item 2.
8. Doors of an interlocked-door vestibule shall be self-closing.
9. Doors of an interlocked-door vestibule shall swing in the direction of egress travel except for powered doors in accordance with Section 7.2.1.9.
10. The egress path shall not pass through more than one interlocked-door vestibule.
11. Door electrical locking hardware for new installations shall be listed in accordance with UL 294, Access Control System Units, or UL 1034, Burglary-Resistant Locking Mechanisms.
12. The fire department with responsibility for responding to a building that contains an interlocked-door vestibule shall be notified of the presence of the interlocked-door vestibule.

**Reason:**

This proposal, along with complementary proposals in Chapters 18, 19, 20, 21, 36, 37, 38, 39, 40, and 42 offer the opportunity for interlocked-door vestibules in these occupancies.

Interlocked-door vestibules are utilized for environmental contamination control (health care; manufacturing clean rooms), controlled substance dispensing (prescription drugs and cannabis), occupant protection (health care), security reasons (money handling rooms), and other uses and applications.

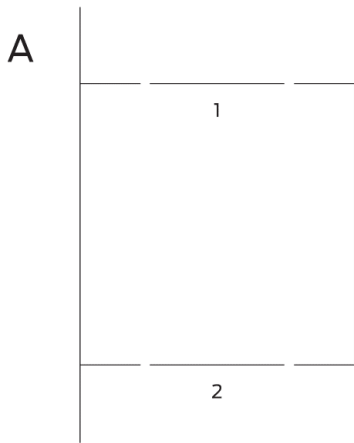
This proposal addresses the egress aspects of interlocked-door vestibules. Ingress and controlling access into a building or space is not addressed by these proposed provisions.

An occupant egressing through an interlocked-door vestibule would not be delayed at the second door in series if the first door in series is in a closed position. Conversely, if the first door is not closed, the second door would not be able to be opened. The proposed requirements for interlock override switches, for “fail-safe” interlocks in the event of power failure, and to deactivate the interlock upon activation of the sprinkler system or smoke detection system are all intended to ensure unencumbered egress when and if needed.

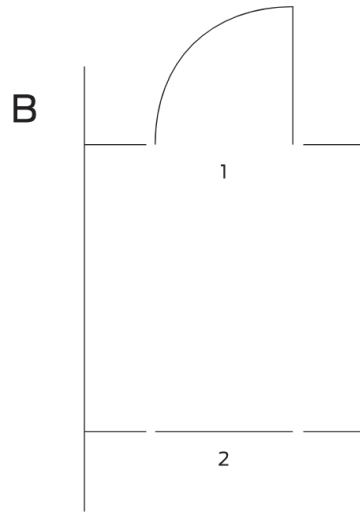


An interlocked-door vestibule, which may also be known as an airlock, interlock, or man-trap, can help limit the passage of contaminants by allowing only one door to be open at a time, or controls access to and egress from an area for security reasons (such as in a data center or prescription drug dispensary). This image illustrates one of the common applications, an interlocked-door vestibule serving a clean room in a laboratory environment. Air-flow in or out is limited with normal operation as only one door may be opened at a time. In an emergency, both doors may be opened simultaneously, via the override switch beside each door.

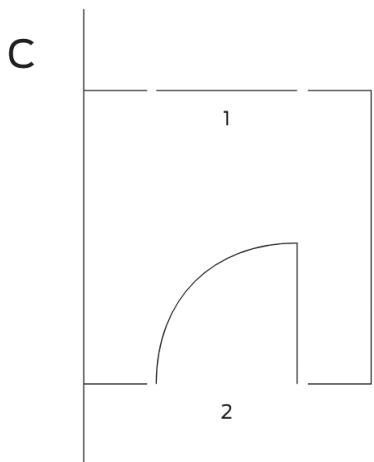
When both doors are in the closed position, they may either allow free access or they may be equipped with access control, but they will allow egress.



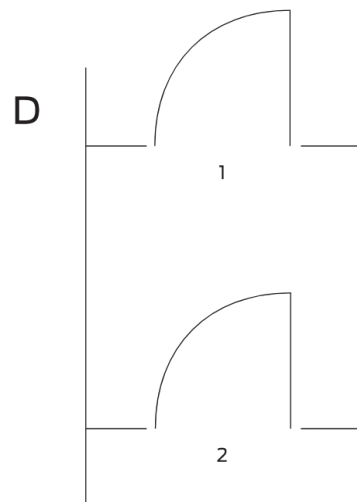
When the outer door (Door 1) is opened, the inner door (Door 2) is locked and can not be opened. When Door 1 closes, either door may be opened.



When the inner door (Door 2) is opened, the outer door (Door 1) is locked and can not be opened. When Door 2 closes, either door may be opened.



The override switch located next to each door may be used to unlock both doors at the same time, in case of emergency.



The proposed criteria were developed during the development process for the 2024 edition of NFPA 101, and further revised reflecting subsequent discussion on this topic.

#### **A 7.2.1.6.5**

Interlocked-door vestibules are as the name implies: a vestibule with interlocked-doors. The egress door into the vestibule is interlocked with the door leading out of the vestibule such that only one of the doors can be open at a given time.

Interlocked-door vestibules may be utilized for environmental contamination control (health care; manufacturing clean rooms), controlled substance dispensing (prescription drugs and cannabis), occupant protection (health care), security reasons (money handling rooms), and other uses and applications.

An occupant egressing through an interlocked-door vestibule would not be delayed at the second door in series if the first door in series is in a closed position. Conversely, if the first door is not closed, the second door would not be able to be opened. The requirements for interlock override switches, for "fail-safe" interlocks in the event of power failure, and to deactivate the interlock upon activation of the sprinkler system or smoke detection system are all intended to ensure unencumbered egress through the interlocked-door vestibule if and when needed.

**Public Input No. 283-NFPA 101-2024 [ Section No. 7.2.1.6.4 ]****7.2.1.6.4\* Elevator Lobby Exit Access Door Assemblies Locking.****7.2.1.6.4.1**

Where permitted in Chapters 11 through 43, door assemblies separating the elevator lobby from the exit access required by 7.4.1.6.1 shall be permitted to be electrically locked, provided that all the following criteria are met:

- (1)\* Door electromechanical or electromagnetic locking hardware is listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.
- (2) The building is protected throughout by a fire alarm system in accordance with Section 9.6.
- (3) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
- (4) Waterflow in the sprinkler system required by 7.2.1.6.4.1 is arranged to initiate the building fire alarm system.
- (5) The elevator lobby is protected by an approved, supervised smoke detection system in accordance with Section 9.6.
- (6) Detection of smoke by the detection system required by 7.2.1.6.4.1 is arranged to initiate the building fire alarm system and notify building occupants.
- (7) Initiation of the building fire alarm system by other than manual fire alarm boxes unlocks the electrical locks on the elevator lobby door assembly.
- (8) Loss of power to the elevator lobby electrical lock system unlocks the electrical locks on the elevator lobby door assemblies.
- (9) Once unlocked, the elevator lobby door assemblies remain electrically unlocked until the building fire alarm system has been manually reset.
- (10) Where the elevator lobby door assemblies remain mechanically latched after being electrically unlocked, latch-releasing hardware in accordance with 7.2.1.5.3 is affixed to the door leaves.
- (11) A two-way communication system is provided for communication between the elevator lobby and a central control point that is constantly staffed.
- (12) For new installations, the electrical locks on the elevator lobby door assemblies shall be capable of being unlocked from the central control point.
- (13) The central control point staff required by 7.2.1.6.4.1(11) is capable, trained, and authorized to provide emergency assistance.

**7.2.1.6.4.2**

Elevator lobby exit access doors equipped with electrical locking systems shall not be required to comply with 7.2.1.6.1, 7.2.1.6.2, or 7.2.1.6.3.

**Statement of Problem and Substantiation for Public Input**

If the central control point staff are required to be capable, trained, and authorized to provide emergency assistance (item 13) and there's a two-way communication system provided between the central control point and the elevator lobbies, it makes sense to have the capability of unlocking locked elevator lobby exit access doors from the central control point.

**Submitter Information Verification**

**Submitter Full Name:** John Woestman  
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**Street Address:**  
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**Submittal Date:** Mon Jun 03 20:23:02 EDT 2024  
**Committee:** SAF-MEA

**Public Input No. 10-NFPA 101-2024 [ Section No. 7.2.1.7.1 ]****7.2.1.7.1**

~~Where a side-hinged door assembly, a pivoted-swinging door assembly, or a balanced door assembly is required to be equipped with panic or~~ Panic hardware and fire exit hardware ~~, such hardware shall meet~~ comply with all of the following ~~criteria~~ :

- (1) It shall consist of a ~~cross bar~~ crossbar or a push pad, with the length of the actuating portion of the ~~cross bar~~ crossbar or push pad extending not less than one-half of the width of the door leaf ~~measured from the latch stile~~ unless otherwise required by 7.2.1.7.2.
- (2) It shall be mounted as follows:
  - (3) New installations shall be not less than 34 in. (865 mm) and not more than 48 in. (1220 mm) above the floor.
  - (4) Existing installations shall be not less than 30 in. (760 mm) and not more than 48 in. (1220 mm) above the floor.
- (5) It shall be constructed so that a horizontal force ~~not to exceed~~ exceeding 15 lbf (66 N) ~~actuates~~ applied to the ~~cross bar~~ crossbar or push pad ~~and latches~~ , in the direction of egress, releases the latch(es).
- (6) Installation of fire exit hardware complies with NFPA 80, the listing of the door, its listing, and manufacturer's installation instructions.

**Statement of Problem and Substantiation for Public Input**

The proposed modifications improve the charging statement by focusing on installing and operating panic and fire exit hardware regardless of occupancy, creating consistency throughout the Code without making any technical changes.

Panic hardware and fire exit hardware devices are only installed on side-swinging doors; differentiating between the types of side-swinging (e.g., side-hinged, pivoted-swinging, and balanced) doors on which these devices are used is unnecessary. More importantly, as the charging statement is currently written, the provisions and requirements of 7.2.1.7 only apply to REQUIRED panic hardware and fire exit hardware devices. Which is to say that section 7.2.1.7 doesn't apply to panic hardware and fire exit hardware used in occupancies other than Assembly, Educational, and Day-Care occupancies and doors in certain hazardous locations. Deleting the word "required" is consistent with the phrasing used in 7.2.1.14.1 (1) under Inspection of Door Openings.

For example, fire exit hardware is commonly installed on stair tower doors in business, apartment, and hotel (and other) occupancies that don't require its use. Additionally, most doors with delayed egress locking systems are equipped with electrified panic hardware and fire exit hardware devices containing the electronic locking system's components; most of these doors are in occupancies that don't require panic hardware or fire exit hardware. These panic hardware and fire exit hardware devices should comply with sections 7.2.1.7 and 7.2.1.6.1.

Healthcare occupancies are perhaps the best example where large numbers of doors are equipped with panic hardware and fire exit hardware even though the Code doesn't REQUIRE its use. Like fire exit hardware, panic hardware devices are often installed on non-fire-rated doors in occupancies other than assembly, educational, and day-care occupancies that don't require its use. Further, while the Code only requires panic hardware and fire exit hardware to be used in assembly, educational, and day-care occupancies, it does not restrict its use to only those occupancies; these devices can be used in most other occupancies in the Code. Similarly, 7.2.1.7.4 prohibiting the installation of "...any locking device, set screw, or other arrangement that prevents the release of the latch..." on "required panic hardware and fire exit hardware" doesn't apply to panic hardware and fire exit hardware devices installed on doors in occupancies where the Code doesn't REQUIRE it.

In these scenarios, the provisions and requirements of 7.2.1.7.1 and 7.2.1.7.4 don't apply since the occupancies involved don't REQUIRE panic hardware or fire exit hardware to be used.

The proposed changes are consistent with how the Code addresses other door hardware components (e.g., locks and latches) by focusing on their installation and operation, not the doors on which they are used.

In the interest of public safety, it makes sense that all installations of panic hardware and fire exit hardware in the Code comply with the provisions and requirements of Section 7.2.1.7 Panic Hardware and Fire Exit Hardware in its entirety, regardless of whether the Code requires it or merely permits its use.

Item (1) the phrase "...measured from the latch stile..." has been used in the Code since at least the late 1980s as it applied to the installation of panic hardware on balanced doors. Recently, it was added to this section during the NFPA 101 (2021) revision cycle (see FR No. 6547-NFPA 101-2018), making it apply to all applications of panic hardware and fire exit hardware devices. The reason this phrase was used for balanced doors was to ensure the active push pad did not extend beyond the



offset pivot point of the doors, creating a fulcrum, thereby potentially impairing or prohibiting the opening of the doors in the direction of egress; that condition does not exist on side-hinged and pivoted-swinging doors. More importantly, as it is currently written, Item (1) requires the measurement to be taken across the door's width from the latch stile of the door—the outermost vertical edge of the door. Depending on the design of panic hardware and fire exit hardware devices, active crossbars or push pads are inset from the latch stile of the doors approximately 3 to 6 inches, extending therefrom laterally toward the hinge side of the door, for at least one-half the width of the doors. No installations of panic hardware or fire exit hardware that can comply with this requirement.

The proposed changes to Item (3) improve readability and clarify that the specified horizontal force is "applied" to the crossbars and push pads "in the direction of egress"—no technical changes were made. The phrase "in the direction of egress" is consistent with door hardware terminology used elsewhere in Chapter 7.

While Chapter 8 requires the installation of all fire-rated doors to comply with NFPA 80, new Item (4) explicitly requires fire exit hardware devices to comply with NFPA 80, as well as the listings of the doors to which they are attached, their own listings, and manufacturer's installation instructions.

Lastly, in the context of Section 7.2.1.7, the term "crossbar" should be one word.

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**Committee:** SAF-MEA



## Public Input No. 12-NFPA 101-2024 [ New Section after 7.2.1.7.3 ]

### **7.2.1.7.3.1\* Where required by the listing of fire-rated doors equipped with fire exit hardware, auxiliary latches shall be located and installed in accordance with all the following conditions:**

- (1) The quantity, orientation, and placement of auxiliary latches comply with the listings of the fire-rated doors.
- (2) The listing of the auxiliary latches.
- (3) The manufacturer's installation instructions.

**A.7.2.1.7.3.1** Pairs of doors equipped with fire exit hardware applications such as top-rod-only might require auxiliary latches (aka fire or thermal pins) to maintain positive latching under fire conditions. Auxiliary latches can be subcomponents of fire exit hardware devices or standalone components like other latching door hardware. Commonly, such applications include a single auxiliary latch installed in the vertical edge of one door leaf—about 12 inches (309 mm) to 16 inches (406 mm) above the floor—projecting horizontally into the vertical edge of the opposing door. However, some pairs of fire-rated doors require two (2) and as many as five (5) auxiliary latches, depending on the internal construction and listings of the fire-rated doors; the listings of the doors determines the number of auxiliary latches required. Some applications require up to two (2) auxiliary latches projecting from the top rails of doors into the rabbets of the door frames. In other applications, up to two (2) auxiliary latches are oriented to project into the floor directly below the doors. Certain applications place horizontal auxiliary latches up to 40 inches (1016 mm) above the floor. (See A.7.2.1.5.5 for more information.)

### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
Pages_from_151201_VT_Indsutries_LBR_and_Fire_Pin_P322-1.pdf	This file contains illustrations from one fire-rated wood door manufacturer showing the quantity, orientation, and placement of auxiliary latches for one of its door constructions. Other door constructions from this manufacturer, and fire-rated doors from other manufacturers require one or more auxiliary latches.	
190725_VT_Industries_Double_Egress_LBR_Fire_Pins_P472.pdf	This file contains one fire-rated wood door manufacturer's technical bulletin regarding the number of auxiliary latches required for their double egress doors. Other fire-rated wood door manufacturers have similar requirements for certain of their door constructions.	

### Statement of Problem and Substantiation for Public Input

Section 7.2.1.5.5 exempts fire-rated doors exposed to elevated temperatures of fire from being operable when the building is occupied. A.7.2.1.5.5 explains that auxiliary latches (aka fire and thermal pins) render doors inoperable after exposure to fire. Auxiliary latches have been in use since at least the early 1990s, and their use is ubiquitous today. However, the Code does not currently contain provisions and requirements for using auxiliary latches. Accordingly, this proposed new section addresses the installation and use of auxiliary latches when used on certain fire-rated doors equipped with fire exit hardware. The quantity, orientation, and placement of auxiliary latches on pairs of doors vary based on the internal construction of the doors and how the manufacturers tested the doors by a nationally recognized testing laboratory (NRTL). While many pairs of fire-rated doors require a single auxiliary latch, other pairs of fire-rated doors require two or more, even up to five auxiliary latches on certain assemblies (see the attached files for examples from one door manufacturer). Pairs of wood and wood-composite fire-rated doors generally require more auxiliary latches than hollow metal (aka steel) fire-rated doors.

Unlike other types of positive latching hardware components, in their normal state (i.e., the captured pins are held retracted by fusible coverings), auxiliary latches are not operable by occupants; they only project after their fusible coverings melt when exposed to temperatures of approximately 400°F or greater, releasing the pins and causing them project under spring power. Once projected, they cannot be retracted; fixing the door panels closed to maintain the integrity of the fire barriers and walls in which they are installed. Consequently, auxiliary latches are not subject to the Code's range of mounting heights for operable latching hardware components.

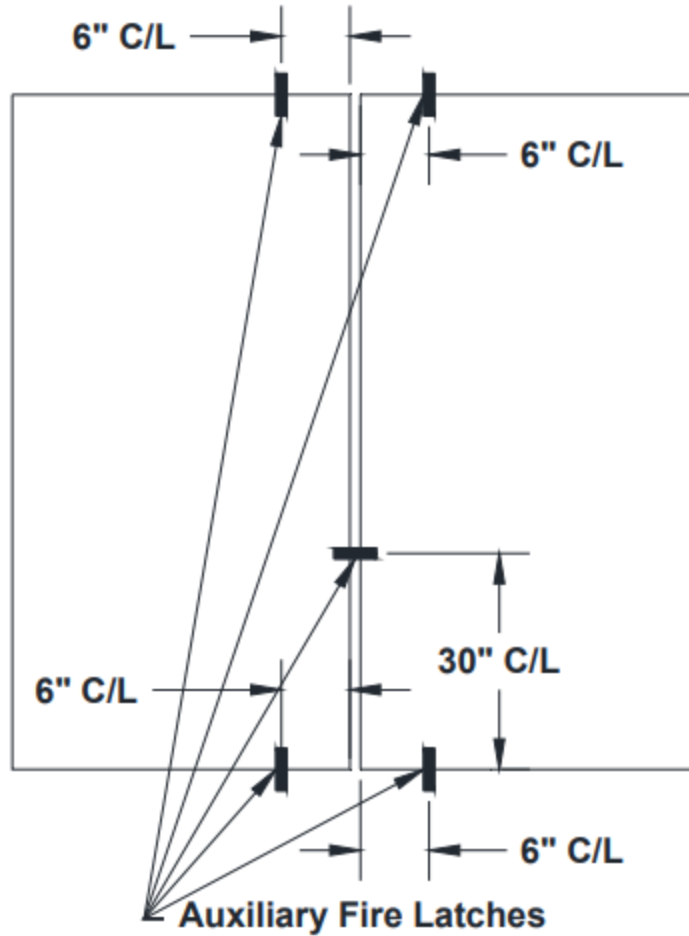
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**Committee:** SAF-MEA



# Product Update

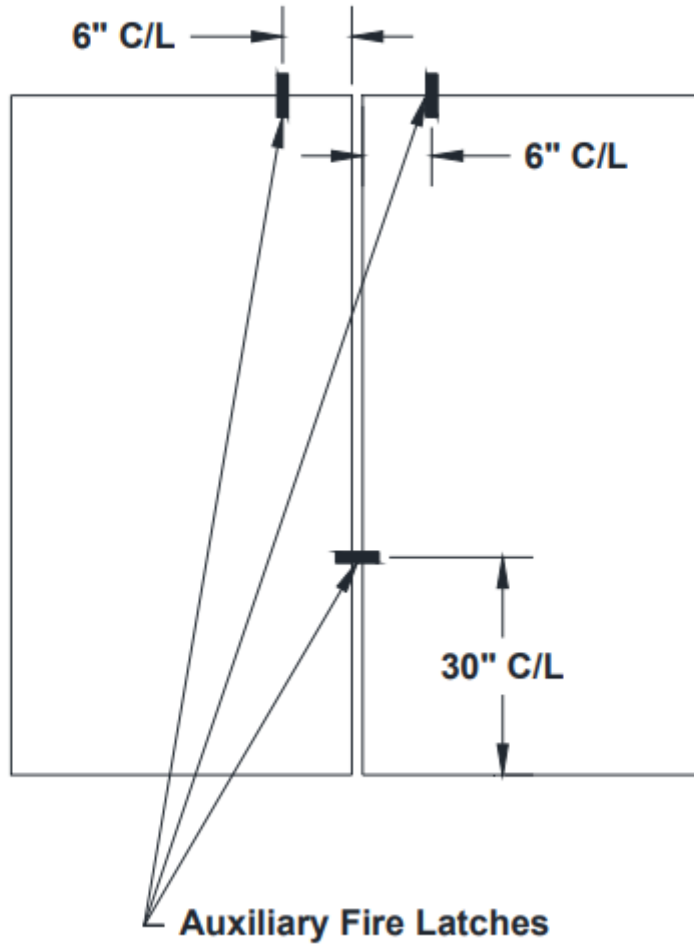
## AUXILIARY FIRE LATCH #1





# Product Update

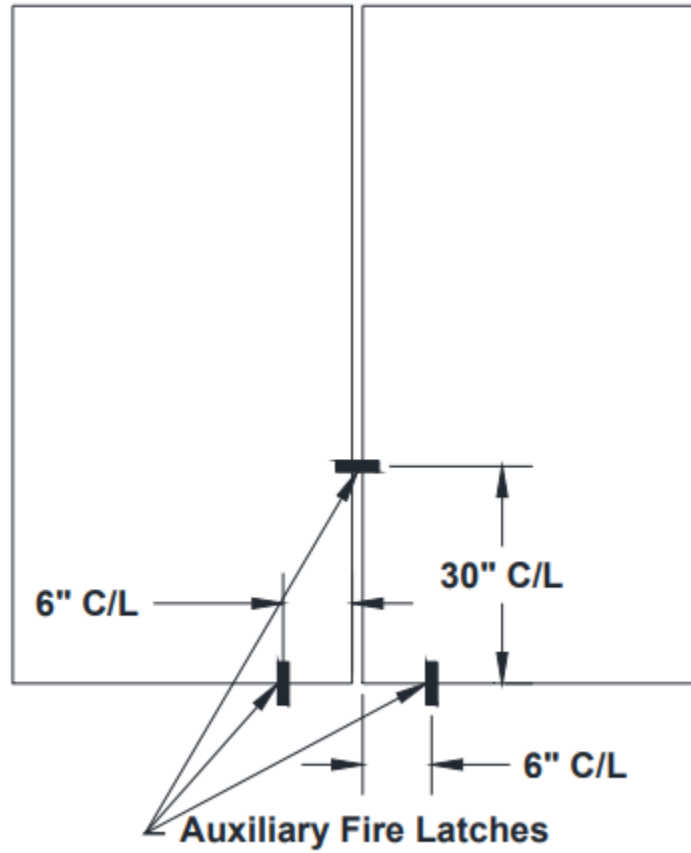
## AUXILIARY FIRE LATCH #2





# Product Update

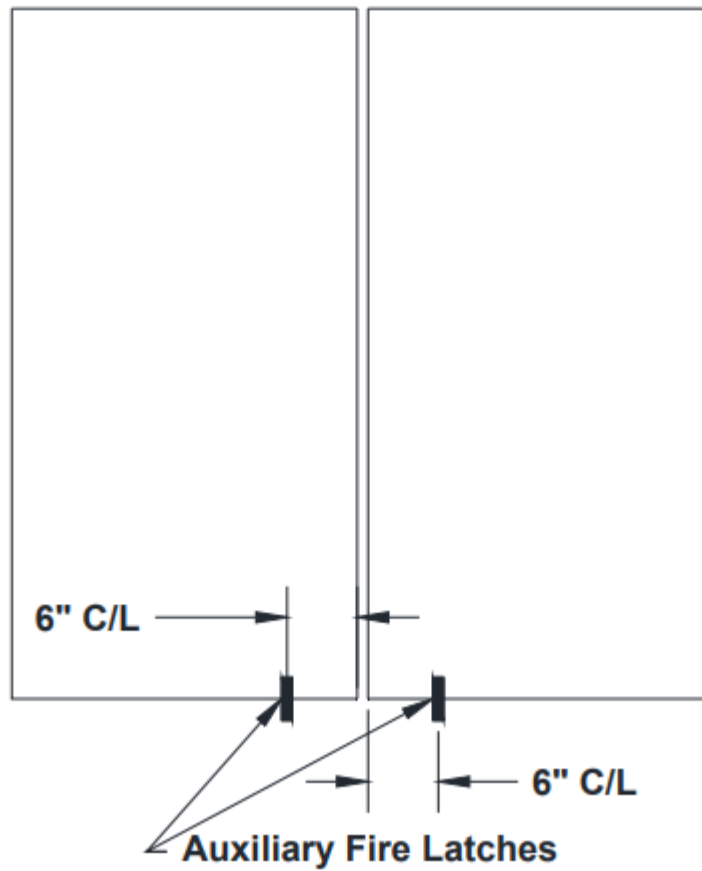
## AUXILIARY FIRE LATCH #3





# Product Update

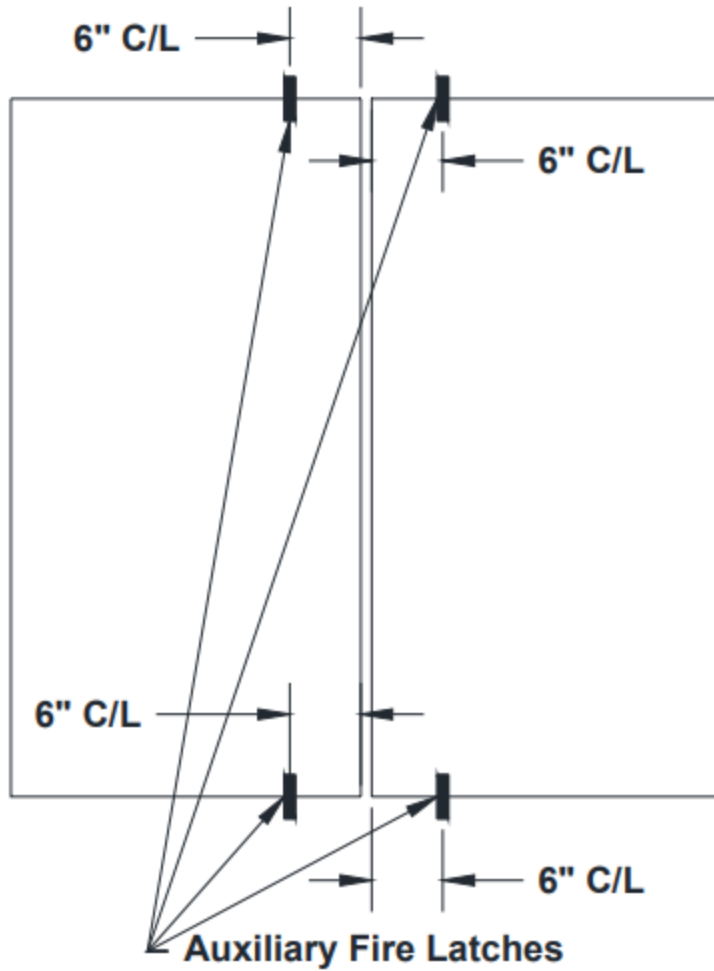
## AUXILIARY FIRE LATCH #4





# Product Update

## AUXILIARY FIRE LATCH #5

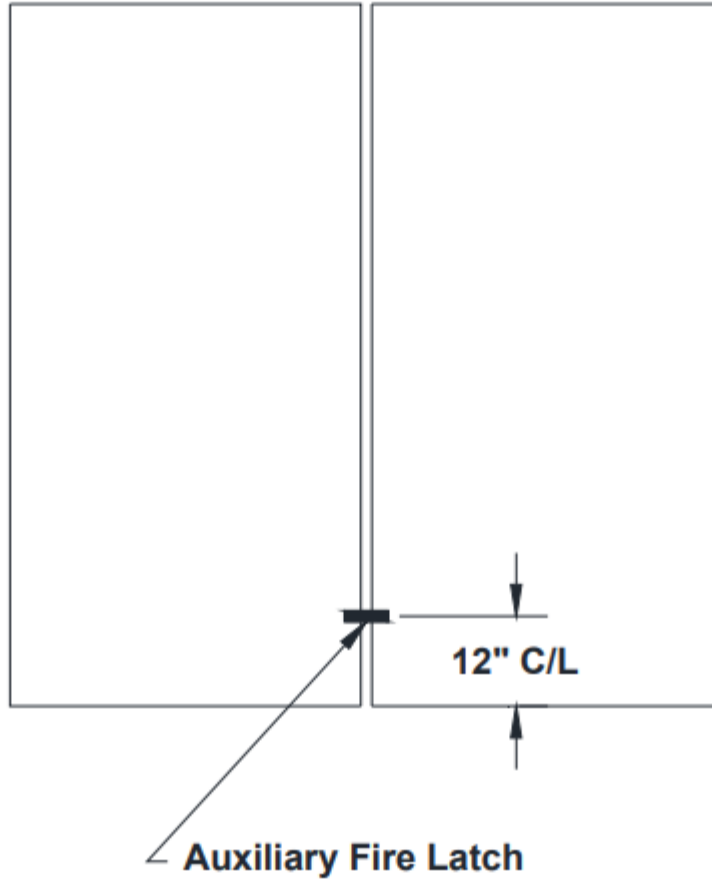






# Product Update

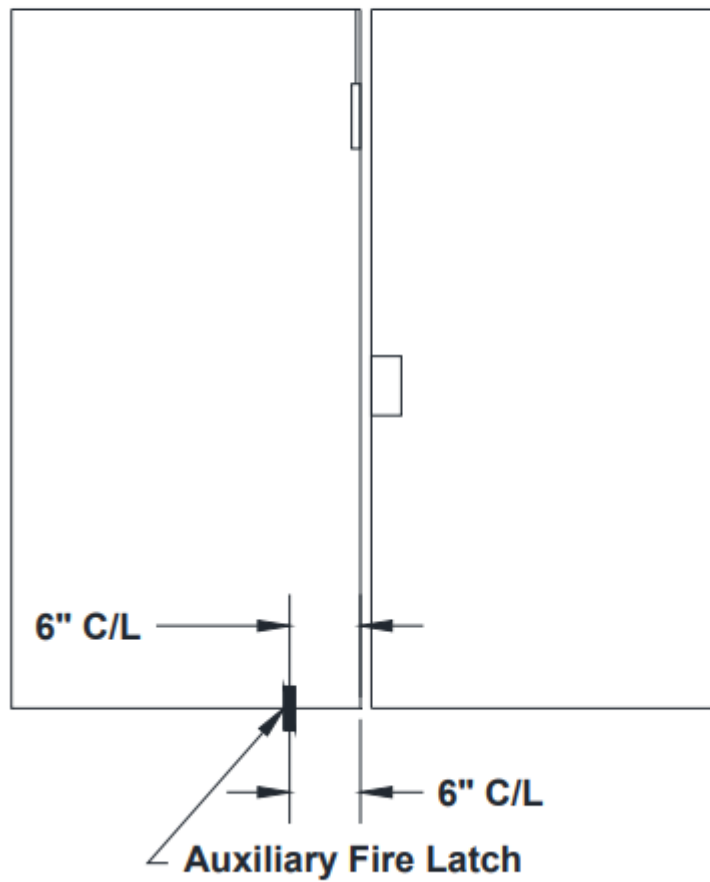
## AUXILIARY FIRE LATCH #6





# Product Update

## AUXILIARY FIRE LATCH #7





# Product Update

JULY 25, 2019

#P472

Revision 01

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## 45-60-90-MINUTE DOUBLE EGRESS

VT has approval to manufacture and label pairs of double egress doors up to 90-minutes. This application is available with less-bottom-rod concealed vertical rods (except for plastic faced doors) or surface vertical rods (full or less- bottom-rod) hardware.

We can use any approved hardware, but will not machine for Monarch or American CVRs.

- Opening size is limited to 8-0 x 8-0 maximum size.
- Only available with Category A meeting edges.
- Full or partial height metal edges or metal edge and astragals are allowed with surface vertical rod hardware.
- With less-bottom-rod devices 5 auxiliary fire latches are required (one on the meeting edges, one in each top rail, and one in each bottom rail).
- With top and bottom surface vertical rods 3 auxiliary fire latches are required. (One on the meeting edge and one in each top rail).



## Public Input No. 11-NFPA 101-2024 [ Section No. 7.2.1.7.3 ]

### 7.2.1.7.3\*

Only approved fire exit hardware shall be used on fire-~~protection~~-rated door assemblies. New panic hardware and new fire exit hardware shall comply with UL 305, *Panic Hardware*, and ANSI/BHMA A156.3, *Exit Devices*.

### Statement of Problem and Substantiation for Public Input

Fire exit hardware devices can be (and are) used on both fire protection-rated and fire resistance-rated side-hinged and pivoted swinging doors. As currently written, 7.2.1.7.3 seems to exclude using fire exit hardware on fire resistance-rated doors. The proposed change removes "protection" thereby including both fire protection-rated and fire resistance-rated doors. Alternatively, this section could be modified to insert "... and fire resistance-rated..." immediately following "protection-rated" in the current statement.

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**Public Input No. 26-NFPA 101-2024 [ New Section after 7.2.1.8.1 ]****7.2.1.8.1.1\***

**Self-closing doors shall swing easily and freely and comply with all the following conditions:**

- (1) Closing devices shall be adjusted to ensure the doors close from the full-open and any partially-open positions.**
- (2) Manually-operated hold-open features of closing devices shall not be permitted.**
- (3) The movement of the doors shall not be impaired or prohibited by binding against floors, door frames, and doors.**
- (4) Closing devices shall be adjusted to overcome resistance of latching hardware and building stack pressure.**
- (5) Tampering with self-closing devices and otherwise impairing or preventing doors from closing shall not be permitted.**
- (6) Blocking self-closing doors in the full-open or any partially-open position shall not be permitted.**

**A.7.2.1.8.1.1 Many self-closing doors are susceptible to seasonal changes affecting HVAC systems, requiring periodic adjustments to ensure they close reliably. Stack pressures in stair towers can affect doors at landings, preventing closing and latching, and might cause doors to close too quickly, potentially injuring occupants. Depending on the adjacent construction, self-closing doors might be able to open from 90 to 140 (or more) degrees nominally, and certain hardware applications might limit their travel to between 85 to 110 degrees nominally. Closing devices and other hardware should not have manually-operated hold-open features or functions that prevent doors from closing every time they are opened. Frequently, due to irregularities in floor construction, doors opening beyond 110 degrees bind against floor covering materials (e.g., carpet), preventing the doors from closing. Care should be taken to correct floor conditions impairing or interfering with the movement of self-closing doors. In the case of fire-rated self-closing doors, NFPA 80 requires these doors to reliably close and latch every time they are open, regardless of how far they are opened.**

**Statement of Problem and Substantiation for Public Input**

Since the Code requires certain doors to be kept closed, closing devices on doors with self-closing operation must be adjusted to ensure the doors close from the full-open, as well as any partially-open positions. 7.2.1.8.1 applies to both fire-rated and non-fire-rated doors. The closing devices cannot have manual hold-open functions, and the doors cannot have any other manually-operated hold-open devices (e.g., kick-down and overhead door holders, etc.). Binding of doors against door frames, opposing leaves of paired doors, and floors impair and prevent reliable closing of self-closing doors. NFPA 80's inspection and testing requirements verifies the free movement of self-closing fire-rated doors. However, NFPA 101 does not specify the movement of non-fire-rated self-closing doors to be free from binding or other impairments.

The proposed new section clarifies that where doors are required to have self-closing operation, the doors need to move easily (and freely) and close reliably.

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## Public Input No. 28-NFPA 101-2024 [ New Section after 7.2.1.8.1 ]

### 7.2.1.8.1.2\* Closing Speed

Closing speeds of self-closing doors shall comply with ICC/ANSI A117.1 as follows:

1. Adjust closing devices, other than spring hinges, such that the time it takes to move the doors from an open position of ninety (90) degrees to twelve (12) degrees from the closed position, shall not be faster than five (5) seconds.
2. Adjust spring hinges such that the time it takes the doors to close completely from an open position of seventy (70) degrees shall not be faster than one and one-half (1.5) seconds.

**A.7.2.1.8.1.2** ICC/ANSI A117.1, Accessible Buildings and Facilities, specifies closing speeds of self-closing doors, fire-rated and non-fire-rated. Most hydraulic self-closing devices have a two-stage closing cycle, sweep, and latch, controlling the speed of the door's movement. The sweep speed of these closing devices should be adjusted to keep the doors from closing too quickly (e.g., not faster than five (5) seconds from 90 to 12 degrees). Additionally, the latch speeds of these closing devices should be adjusted to overcome resistance of latching hardware and building stack pressures, ensuring the doors reliably close and, where required, latch. Typically, the latch-speed-stage of the closing cycle quickly close doors from 12 degrees to overcome resistance of latching hardware; there is no minimum time for the latch-speed-stage of closing cycles. Spring hinges cannot control the closing speed of doors, often causing doors to slam or not close reliably. Consequently, care should be taken when adjusting spring hinges. (See Fig. A.7.2.1.8.2.)

<<INSERT ONE OF THE ATTACHED ILLUSTRATIONS>>

### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101_First_Draft_Fig_A.7.2.1.8.2.docx	Proposed fig for closing speed of self-closing doors.	

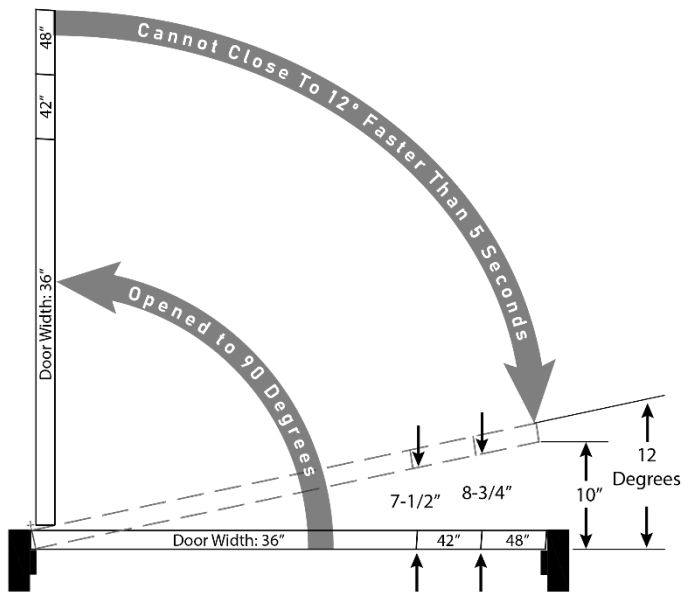
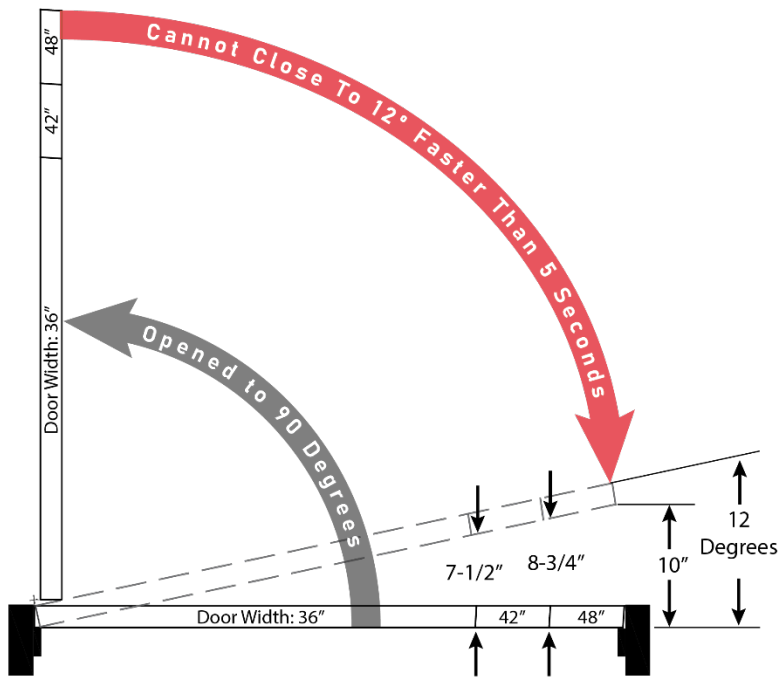
### Statement of Problem and Substantiation for Public Input

The proposed new section clarifies the Code's closing speed requirement for self-closing doors. Many self-closing doors are required to comply with the conditions of A117.1, but certain conditions such as the closing speed of doors are unspecified in the Code. The door inspection requirements of 7.2.1.14.6, specifically item (6), requires the closing speed of doors to comply with accessibility requirements. However, NFPA 101 does not contain provisions and requirements regarding the closing speeds of self-closing doors.

This proposal seeks to add A117.1's closing speed limitations for self-closing doors to complement the inspection and testing requirement of 7.2.1.14.6(6).

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**Committee:** SAF-MEA



**Public Input No. 273-NFPA 101-2024 [ New Section after 7.2.1.8.4 ]****7.2.1.8.5 Door closing**

Swinging doors with closers utilizing cables, chains or ropes, and pulleys and counterweights shall automatically close and latch from any open position.

**7.2.1.8.5.1**

All other automatic closing swinging doors shall close and latch from the hold open position and from any position between 30 degrees open and the hold open position, and all other self-closing swinging doors shall close and latch from any position greater than 30 degrees open.

**Statement of Problem and Substantiation for Public Input**

For doors that are required to be automatic-closing or self-closing, NFPA 101 requires these doors to comply with NFPA 80. NFPA 80 has differing, and a bit confusing, requirements for closing and latching of swinging door opening protectives (see the summary, below). This proposal is an attempt to simplify the requirements for testing the operation of automatic-closing and self-closing doors, and to include these requirements in NFPA 101. BHMA recommends that swinging automatic-closing and self-closing doors be required to close and latch when released from a door-open position of 30 degrees and greater, which is consistent with NFPA 80 requirements for swinging fire doors with spring hinges.

Summary of NFPA 80 provisions regarding testing the operation of automatic-closing and self-closing doors.

- The requirements for inspection and testing of swinging doors with builders hardware or fire door hardware (the vast majority of fire doors currently being installed), in Item 7 of 5.2.3.5.2 (NFPA 80-2022) requires the door to completely close when operated from the full open position.
- The requirements for inspection and testing of swinging doors with fire door hardware (the old-style metal clad fire doors typically closed with pulleys, chains, cables, ropes, counterweights, and / or fusible links) in Item 13 of 5.2.3.6.2, requires these doors to close completely from any open position.
- The requirements for installation of swinging doors with builders hardware or fire door hardware in Chapter 6 of NFPA 80, in 6.4.1.4, state the closing mechanism is to be adjusted . . . so that positive latching is achieved on each door operation. And, specifically, 6.4.1.5 requires doors with spring hinges are to achieve positive latching with the door is allowed to close freely from an open position of no more than 30 degrees.

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**Committee:** SAF-MEA





## Public Input No. 276-NFPA 101-2024 [ Section No. 7.2.1.10 ]

### 7.2.1.10 Revolving Door Assemblies.

#### 7.2.1.10.1

Revolving door assemblies, whether used or not used in the means of egress, shall comply with all of the following:

- (1) New revolving doors shall comply with ANSI/BHMA A156.27, *Power and Manual Operated Revolving Pedestrian Doors*, and shall be installed in accordance with the manufacturer's installation instructions.
- (2) Revolving door wings shall be capable of book-fold or breakout for egress in accordance with ANSI/BHMA A156.27, unless they are existing revolving doors approved by the authority having jurisdiction.
- (3) When revolving door wings are collapsed into the book-fold position, the parallel egress paths formed shall provide an aggregate width of 36 in. (915 mm), unless they are approved existing revolving door assemblies.
- (4) Revolving door assemblies shall not be used within 10 ft (3050 mm) of the foot or the top of stairs or escalators.
- (5) A dispersal area acceptable to the authority having jurisdiction shall be located between stairs or escalators and the revolving door assembly.
- (6) The revolutions per minute (rpm) of door wings shall not exceed the following:
  - (7) The values in Table 7.2.1.10.1 for existing revolving doors.
  - (8) The values in ANSI/BHMA A156.27 for new revolving doors.
- (9) Each revolving door assembly shall have a conforming ~~side-hinged swinging~~ door assembly other than a revolving door in the same wall as the revolving door within 10 ft (3050 mm) of the revolving door, unless one of the following conditions applies:

(10) Revolving door assemblies shall be permitted without adjacent

swinging

(a) conforming door assemblies, as required by 7.2.1.10.1(

6

(a) 7), in street floor elevator lobbies, provided that no stairways or door openings from other parts of the building discharge through the lobby and the lobby has no occupancy other than as a means of travel between the elevators and street.

(b) The requirement of 7.2.1.10.1(

6

(a) 7) shall not apply to existing revolving door assemblies where the number of revolving door assemblies does not exceed the number of swinging door assemblies within 20 ft (6100 mm) of the revolving door assembly.

Table 7.2.1.10.1 Existing Revolving Door Assembly Maximum Speed

<u>Inside Diameter</u>		<u>Manual Speed Control</u>	
<u>ft/in.</u>	<u>mm</u>	<u>Power-Driven Speed Control (rpm)</u>	<u>(rpm)</u>
6 ft 6 in.	1980	11	12
7 ft	2135	10	11
7 ft 6 in.	2285	9	11
8 ft	2440	9	10
8 ft 6 in.	2590	8	9
9 ft	2745	8	9
9 ft 6 in.	2895	7	8
10 ft	3050	7	8

**7.2.1.10.2**

Where permitted in Chapters 11 through 43, revolving door assemblies shall be permitted as a component in a means of egress, provided that all of the following criteria are met:

- (1) Revolving door openings shall not be given credit for more than 50 percent of the required egress capacity.
- (2) Each revolving door opening shall not be credited with more than a 50-person capacity or, if of not less than a 9 ft (2745 mm) diameter, a revolving door assembly shall be permitted egress capacity based on the clear opening width provided when collapsed into a book-fold position.
- (3) Revolving door wings shall be capable of being collapsed into a book-fold position when a force not exceeding 130 lbf (580 N) is applied to the wings within 3 in. (75 mm) of the outer edge.

**7.2.1.10.3**

Revolving door assemblies not used as a component of a means of egress shall have a collapsing force not exceeding 180 lbf (800 N) applied at a point 3 in. (75 mm) from the outer edge of the outer wing stile and 40 in. (1015 mm) above the floor.

**7.2.1.10.4**

The requirement of 7.2.1.10.3 shall not apply to revolving door assemblies, provided that the collapsing force is reduced to a force not to exceed 130 lbf (580 N) under all of the following conditions:

- (1) Power failure, or removal of power to the device holding the wings in position
- (2) Actuation of the automatic sprinkler system, where such a system is provided
- (3) Actuation of a smoke detection system that is installed to provide coverage in all areas within the building that are within 75 ft (23 m) of the revolving door assemblies
- (4) Actuation of a clearly identified manual control switch in an approved location that reduces the holding force to a force not to exceed 130 lbf (580 N)

**Additional Proposed Changes**

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101-2027_Door_Beside_Revolving_Door_Proposal_20240603.pdf	PDF of proposed revisions of PI 276.	

**Statement of Problem and Substantiation for Public Input**

The text in Item 7 is proposed to be revised as the current requirements are unnecessarily restrictive by requiring specifically a side-hinged swinging door where other types of doors could also be used.

The proposed revisions reflect what we believe is the intent of Item 7: For normal ingress and egress, and for emergency egress, revolving doors must be complemented with a minimum of one nearby door that is not a revolving door, and which meets all the requirements for egress.

It is not uncommon for the door beside a revolving door to be a low-energy power-operated hinged door. The current code language doesn't specifically permit a power-operated hinged door beside a revolving door. This could result in the interpretation that a low-energy power-operated hinged door is not permitted in that application.

A pdf is attached to more clearly illustrate the proposed revisions.

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**Committee:** SAF-MEA

### 7.2.1.10 Revolving Door Assemblies.

#### 7.2.1.10.1

Revolving door assemblies, whether used or not used in the means of egress, shall comply with all of the following:

- (1) New revolving doors shall comply with ANSI/BHMA A156.27, Power and Manual Operated Revolving Pedestrian Doors, and shall be installed in accordance with the manufacturer's installation instructions.
- (2) Revolving door wings shall be capable of book-fold or breakout for egress in accordance with ANSI/BHMA A156.27, unless they are existing revolving doors approved by the authority having jurisdiction.
- (3) When revolving door wings are collapsed into the book-fold position, the parallel egress paths formed shall provide an aggregate width of 36 in. (915 mm), unless they are approved existing revolving door assemblies.
- (4) Revolving door assemblies shall not be used within 10 ft (3050 mm) of the foot or the top of stairs or escalators.
- (5) A dispersal area acceptable to the authority having jurisdiction shall be located between stairs or escalators and the revolving door assembly.
- (6) The revolutions per minute (rpm) of door wings shall not exceed the following:
  - (a) The values in Table 7.2.1.10.1 for existing revolving doors.
  - (b) The values in ANSI/BHMA A156.27 for new revolving doors.
- (7) Each revolving door assembly shall have a conforming ~~side-hinged swinging~~ door assembly other than a revolving door in the same wall as the revolving door within 10 ft (3050 mm) of the revolving door, unless one of the following conditions applies:
  - (a) Revolving door assemblies shall be permitted without adjacent ~~swinging-conforming~~ door assemblies, as required by 7.2.1.10.1(67), in street floor elevator lobbies, provided that no stairways or door openings from other parts of the building discharge through the lobby and the lobby has no occupancy other than as a means of travel between the elevators and street.
  - (b) The requirement of 7.2.1.10.1(67) shall not apply to existing revolving door assemblies where the number of revolving door assemblies does not exceed the number of swinging door assemblies within 20 ft (6100 mm) of the revolving door assembly.

**Commented [JW1]:** This "revision" should be addressed as an errata in the 2024, 2021, and 2018 editions of NFPA 101.  
Same issue in (b) of this item.

#### Reason:

The text in Item 7 is proposed to be revised as the current requirements are unnecessarily restrictive by requiring specifically a side-hinged swinging door where other types of doors could also be used. The proposed revisions reflect what we believe is the intent of Item 7: For normal ingress and egress, and for emergency egress, revolving doors must be complemented with a minimum of one nearby door that is not a revolving door, and which meets all the requirements for egress. It is not uncommon for the door beside a revolving door to be a low-energy power-operated hinged door. The current code language doesn't specifically permit a power-operated hinged door beside a revolving door. This could result in the interpretation that a low-energy power-operated hinged door is not permitted in that application.



## Public Input No. 108-NFPA 101-2024 [ Section No. 7.2.2.2.1.2(B) ]

(B)\*

Where stairs serve occupant loads exceeding that permitted by 7.2.2.2.1.2(A), the minimum width clear of all obstructions, except projections not more than 4½ in. (114 mm) at or below handrail height on each side, shall be in accordance with Table 7.2.2.2.1.2(B) and the requirements of 7.2.2.2.1.2(C), 7.2.2.2.1.2(D), 7.2.2.2.1.2(E), and 7.2.2.2.1.2(F).

Table 7.2.2.2.1.2(B) New Stair Width

<u>Total Cumulative Occupant Load Assigned to the Stair</u>	=	<u>Width</u>	
		<u>in.</u>	<u>mm</u>
<2000 persons	-	44	1120
≥2000 persons	-	56	1420

The current requirement of the stair width of 56 in. (1420 mm) becomes impractical sometimes. The stair width to be provided based on the occupant load of the floor, not to be based on the cumulative load assigned to stair.

### Statement of Problem and Substantiation for Public Input

The current requirement of the stair width of 56 in. (1420 mm) becomes impractical sometimes.

### Submitter Information Verification

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**Submittal Date:** Fri May 17 12:39:14 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 78-NFPA 101-2024 [ Section No. 7.2.2.4.5.5 ]

### 7.2.2.4.5.5

New handrails shall be installed to provide a clearance of not less than 2¼ in. (57 mm) between the handrail and the wall, guard, or other surface to which it is fastened.

### Statement of Problem and Substantiation for Public Input

The current code language only requires the 2.25 inch clearance from a wall, but handrails are typically only mounted to walls on the outer side of the stair treads. The inside handrails are typically mounted to guards, top railings, newel posts, or other non-wall surfaces which would not require this clearance. The updated language clarifies that the 2.25 inch clearance requirement applies to all handrail mount locations, not just on walls.

### Submitter Information Verification

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**Street Address:**  
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**Zip:**  
**Submission Date:** Tue Apr 30 11:23:52 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 102-NFPA 101-2024 [ Section No. 7.2.2.4.6.3 ]

### 7.2.2.4.6.3\*

Open guards, other than approved existing open guards, shall have intermediate rails or an ornamental pattern such that a sphere 4 in. (100 mm) in diameter is not able to pass through any opening up to a height of 34 in. (865 mm) ; ~~and the following also shall apply: The and t he triangular openings formed by the riser, tread, and bottom element of a guardrail at the open side of a stair shall be of such size that a sphere 6 in. (150 mm) in diameter is not able to pass through the triangular opening.~~

Exception: In detention and correctional occupancies, in industrial occupancies, and in storage occupancies, the clear distance between intermediate rails, measured at right angles to the rails, shall not exceed 21 in. (535 mm).

### Statement of Problem and Substantiation for Public Input

Per Section 7.2.2.4.6.3, open guards are required to have intermediate rails with a maximum space of 4 inches between. Item 2 of this section appears to provide an exception to the rule that allows 3 occupancies to increase the 4 inch limitation to 21 inch maximum. However, a simple reading of the last line of the section ("and the following also shall apply:") indicates that the 4-inch rule is applicable and the 21-inch rule is required. This simple reading basically negates the 21 inch rule. Item 1 of the section appears to be complementary to the 4-inch sphere rule, while Item 2 of the section appears to be negated by the 4 inch sphere rule. Many industrial buildings with elevated walking surfaces are provided with a two rail guard system (one at 42 inches and one at 21 inches).

If Item 2 of the section is negated by the base rule, then it should be removed. However, if Item 2 is an exception to the 4 inch sphere rule, then the language in the section ("and the following also shall apply:") should be modified.

### Submitter Information Verification

**Submitter Full Name:** Jeffrey Demaine

**Organization:** Fisher Engineering

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Wed May 15 02:34:09 EDT 2024

**Committee:** SAF-MEA



## Public Input No. 60-NFPA 101-2024 [ Section No. 7.2.2.4.6.3 ]

### 7.2.2.4.6.3\*

Open guards, other than approved existing open guards, shall have intermediate rails or an ornamental pattern such that a sphere 4 in. (100 mm) in diameter is not able to pass through any opening up to a height of 34 in. (865 mm), and the following also shall apply except as permitted by following :

- (1) The triangular openings formed by the riser, tread, and bottom element of a guardrail at the open side of a stair shall be of such size that a sphere 6 in. (150 mm) in diameter is not able to pass through the triangular opening.
- (2) In detention and correctional occupancies, in industrial occupancies, and in storage occupancies, ~~the clear distance between intermediate rails, measured at right angles to the rails, shall not exceed~~ guards shall not have openings that allow passage of a sphere 21 in. (535 mm) in diameter .

### Statement of Problem and Substantiation for Public Input

The term “and the following shall apply” contained at the end of 7.2.2.4.6.3 has caused some AHJs to interpret that the 4-inch sphere rule must be applied regardless of the 21-inch allowance permitted in 7.2.2.4.6.3(2).

### Submitter Information Verification

**Submitter Full Name:** Samuel Dannaway  
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**Submission Date:** Tue Apr 02 14:09:11 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 38-NFPA 101-2024 [ Section No. 7.2.2.5.1.3 ]

### 7.2.2.5.1.3

In existing buildings, where a ~~an existing two-story exit enclosure connects~~ stair connects the story of exit discharge with an adjacent story, the ~~exit shall~~ stair shall be permitted to be enclosed with 1-hour fire resistance rated fire barrier only on the story of exit discharge, provided that not less than 50 percent of the number and capacity of exits on the story of exit discharge are independent of such enclosures.

### Statement of Problem and Substantiation for Public Input

The current language provides some confusion as it refers to an enclosure that is not enclosed.

The language also refers to the permitted stair arrangement as an "exit enclosure"; exit enclosures have special protections (see 7.1.3.2.1)- it is unclear whether the exit enclosure protections of 7.1.3.2.1 are intended to be applied on the discharge floor or not. As written, the only relieves the stair from compliance with enclosure requirement on the non-discharge floor; as an exit enclosure, the discharge level level needs to be protected in accordance with 7.1.3.2.1 even though it is permitted to be completely exposed to the non-discharge floor.

Additionally, the language of the code text speaks to a stair in an "existing building", not an "existing" stair (the commentary indicates that this provision is applicable to existing stairs) - this permits a new stair to comply with this provision in an existing building, and this appears to run counter to the intent of the code (per the commentary).

### Submitter Information Verification

**Submitter Full Name:** Matthew Shanks

**Organization:** Montgomery County

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**Submission Date:** Tue Mar 12 13:57:10 EDT 2024

**Committee:** SAF-MEA





## Public Input No. 34-NFPA 101-2024 [ Section No. 7.2.3.12 ]

### 7.2.3.12 Emergency Power Supply System (EPSS).

Power shall be provided as follows:

- (1) In other than Health Care Occupancies, A Type 60, Class 2, Level 2 EPSS for new mechanical ventilation equipment and enclosure pressurization systems shall be provided in accordance with NFPA 110.
- (2) A previously approved existing standby power generator installation with a fuel supply adequate to operate the equipment for 2 hours shall be permitted in lieu of 7.2.3.12.
- (3) The generator shall be located in a room separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating.
- (4) In Health Care Occupancies, emergency power shall be provided as required by 18.5.1 or 19.5.1

### Statement of Problem and Substantiation for Public Input

Since each of these items are in the list are enforced as an "and" the first bullet conflicts with the requirements of NFPA 99: 6.7.1.2.1 that requires Type 10, Class X, Level 1 sources. Some AHJs are pointing out this conflict sometimes requiring a separate generator to cover these loads and not allowing them on the Hospital Essential Electrical System. Health care facilities don't have EPSS's. They have Essential Electrical Systems (EES) that may cover the functions of the EPSS, but also divide the loads into multiple branches. This revision makes it clear that item (1) does not apply to health care, but does apply to all other facilities that have mechanical ventilation equipment and enclosure pressurization systems

### Submitter Information Verification

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**Committee:** SAF-MEA



**Public Input No. 188-NFPA 101-2024 [ Section No. 7.3.1.2 ]**

A large, empty rectangular box with a thin border, intended for public input or comments.

**7.3.1.2\*** Occupant Load Factor.

The occupant load in any building or portion thereof shall be not less than the number of persons determined by dividing the floor area assigned to that use by the occupant load factor for that use as specified in Table 7.3.1.2, Figure 7.3.1.2(a), and Figure 7.3.1.2(b). Where both gross and net area figures are given for the same occupancy, calculations shall be made by applying the gross area figure to the gross area of the portion of the building devoted to the use for which the gross area figure is specified and by applying the net area figure to the net area of the portion of the building devoted to the use for which the net area figure is specified.

Table 7.3.1.2 Occupant Load Factor

<b>Use</b>	<b>ft<sup>2</sup> per person<sup>a</sup></b>	<b>m<sup>2</sup> per person<sup>a</sup></b>
<b>Assembly Use</b>	-	-
Concentrated use, without fixed seating	7 net	0.65 net
Less concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Use number of fixed seats <u>plus one</u> for each empty space intended for a wheelchair	Use number of fixed seats <u>plus one</u> for each empty space intended for a wheelchair
Waiting spaces	See 12.1.7.2 and 13.1.7.2.	See 12.1.7.2 and 13.1.7.2.
Kitchens	100	9.3
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms with equipment	50	4.6
Exercise rooms without equipment	15	1.4
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
-	-	-
<b>Business Use (other than below)</b>	150	14
Concentrated business use <sup>b</sup>	50	4.6
Airport traffic control tower observation levels	40	3.7
Collaboration rooms/spaces ≤450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	30	2.8
Collaboration rooms/spaces >450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	15	1.4
<b>Day-Care Use</b>	35 net	3.3 net
<b>Detention and Correctional Use</b>	120	11.1
<b>Educational Use</b>	-	-
Classrooms	20 net	1.9 net
Shops, laboratories, vocational rooms	50 net	4.6 net
<b>Health Care Use</b>	-	-
Inpatient treatment departments	240	22.3
Sleeping departments	120	11.1
Ambulatory health care	150	14
<b>Industrial Use</b>	-	-
General- and high-hazard industrial	100	9.3
Special-purpose industrial	MP	MP
<b>Mercantile Use</b>	-	-
Sales area on street floor <sup>c,d</sup>	30	2.8
Sales area on two or more street floors <sup>d</sup>	40	3.7
Sales area on floor below street floor <sup>d</sup>	30	2.8

<u>Use</u>	<u>ft<sup>2</sup> per person<sup>a</sup></u>	<u>m<sup>2</sup> per person<sup>a</sup></u>
Sales area on floors above street floor <sup>d</sup>	60	5.6
Floors or portions of floors used only for offices	See business use.	See business use.
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall structures <sup>e</sup>	Per factors applicable to use of space <sup>f</sup>	-
<b>Residential Use</b>	-	-
Hotels and dormitories	200	18.6
Apartment buildings	200	18.6
Board and care, large	200	18.6
<b>Storage Use</b>	-	-
In storage occupancies	MP	MP
In mercantile occupancies	300	27.9
In other than storage and mercantile occupancies	500	46.5

MP: The occupant load is the maximum probable number of occupants present at any time.

<sup>a</sup>All factors are expressed in gross area unless marked "net."

<sup>b</sup>See A.7.3.1.2.

<sup>c</sup>For determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft<sup>2</sup> (3.7 m<sup>2</sup>) of gross floor area of sales space.

<sup>d</sup>For determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.292, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

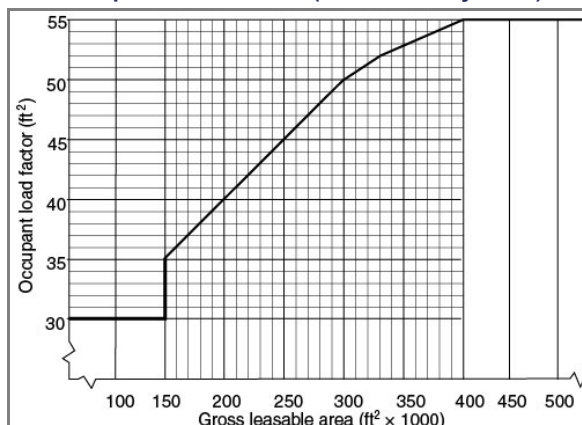
<sup>e</sup>For any food court or other assembly use areas located in the mall concourse that are not included as a portion of the gross leasable area of the mall structure, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall concourse area is not required to be assigned an occupant load.

<sup>f</sup>The portions of the mall concourse not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall concourse are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor buildings) by the appropriate lowest whole number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).

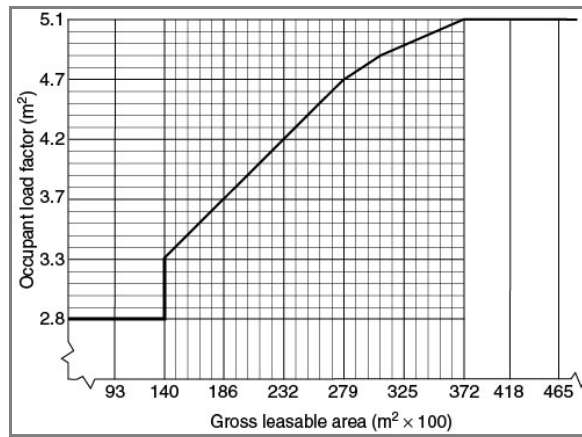
Each individual tenant space is required to have means of egress to the outside or to the mall concourse based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.

Each individual anchor store is required to have means of egress independent of the mall concourse.

**Figure 7.3.1.2(a) Mall Structure Occupant Load Factors (US Customary Units).**



**Figure 7.3.1.2(b) Mall Structure Occupant Load Factors (SI Units).**



### Statement of Problem and Substantiation for Public Input

The Life Safety Code has been out of step with the American's With Disabilities Act (ADA) in under-predicting the occupant load of a fixed seating assembly area. I have tried to fix the problem in a number of ways over the last few cycles and have not had success, probably because I tried to solve other issues simultaneously and caused confusion. So, this cycle, I am only addressing the ADA issues, which is a serious concern.

Prior to 1990 and the passing of the ADA, when a bunch of chairs were in an assembly space, we used the number of chairs as a reasonable start for determining the Occupant Load. Since the ADA has been enforced, we now design fixed seating assembly spaces by not installing all of the fixed seats that we can and leaving open spaces that are intended to be used for individuals in wheelchairs. These individuals need to be included in the Occupant Load count. If, instead of an empty space, a fixed seat was installed, it would be counted. We need to assume that the empty space can be filled with a person in a wheelchair when we consider the Occupant Load.

In the past, I have been told that section 12.1.7.1 handles the problem because it required the user to consider the "maximum probable population of the space" if it is greater than the value in Table 7.3.1.2, but there are two problems with this approach:

- 1) Many people who use the Life Safety Code go to Chapter 7 to determine Occupant Load, not Chapter 12. I have personally witnessed many movie theaters, lecture halls, and auditoriums with Occupant Load signs that clearly indicate that the Occupant Load has been based on the number of fixed seats, ignoring the spaces specifically left open for wheelchairs. When I have asked the AHJ why they approved that Occupant Load number, the response that I have received is, "Because Table 7.3.1.2 just says to count the seats."
- 2) Table 7.3.1.2 is supposed to be a reasonable place to start in determining the Occupant Load. If it is never reasonable to ignore the space open for wheelchairs (and I believe that the ADA says that it is not), then just counting the number of fixed seats is never a reasonable option and it should not remain in the Code.

### Submitter Information Verification

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**Submission Date:** Fri May 31 13:04:48 EDT 2024  
**Committee:** SAF-MEA



**Public Input No. 31-NFPA 101-2024 [ Section No. 7.3.1.2 ]**

A large, empty rectangular box with a thin border, intended for public input or comments.

**7.3.1.2\*** Occupant Load Factor.



The occupant load in any building or portion thereof shall be not less than the number of persons determined by dividing the floor area assigned to that use by the occupant load factor for that use as specified in Table 7.3.1.2, Figure 7.3.1.2(a), and Figure 7.3.1.2(b). Where both gross and net area figures are given for the same occupancy, calculations shall be made by applying the gross area figure to the gross area of the portion of the building devoted to the use for which the gross area figure is specified and by applying the net area figure to the net area of the portion of the building devoted to the use for which the net area figure is specified.

Table 7.3.1.2 Occupant Load Factor

<u>Use</u>	<u>ft<sup>2</sup> per person<sup>a</sup></u>	<u>m<sup>2</sup> per person<sup>a</sup></u>
<b>Assembly Use</b>	-	-
Concentrated use, without fixed seating	7 net	0.65 net
Less concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Use number of fixed seats	Use number of fixed seats
Waiting spaces	See 12.1.7.2 and 13.1.7.2.	See 12.1.7.2 and 13.1.7.2.
Kitchens	100	9.3
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms with equipment	50	4.6
Exercise rooms without equipment	15	1.4
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
-	-	-
<b>Business Use (other than below)</b>	150	14
Concentrated business use <sup>b</sup>	50	4.6
Airport traffic control tower observation levels	40	3.7
Collaboration rooms/spaces ≤450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	30	2.8
Collaboration rooms/spaces >450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	15	1.4
<b>Day-Care Use</b>	35 net	3.3 net
<b>Detention and Correctional Use</b>	120	11.1
<b>Educational Use</b>	-	-
Classrooms	20 net	1.9 net
Shops, laboratories, vocational rooms	50 net	4.6 net
<b>Health Care Use</b>	-	-
Inpatient treatment departments	240	22.3
Sleeping departments	120	11.1
Ambulatory health care	150	14
<b>Industrial Use</b>	-	-
General- and high-hazard industrial	100	9.3
Special-purpose industrial	MP	MP
<b>Mercantile Use</b>	-	-
Sales area on street floor <sup>c,d</sup>	30	2.8
Sales area on two or more street floors <sup>d</sup>	40	3.7
Sales area on floor below street floor <sup>d</sup>	30	2.8
Sales area on floors above street floor <sup>d</sup> - <u>and sales areas for Class A mercantile occupancies on or below street floor</u>	60	5.6
Floors or portions of floors used only for offices	See business use.	See business use.

Use	ft <sup>2</sup> per person <sup>a</sup>	m <sup>2</sup> per person <sup>a</sup>
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall structures <sup>e</sup>	Per factors applicable to use of space <sup>f</sup>	
<b>Residential Use</b>	-	-
Hotels and dormitories	200	18.6
Apartment buildings	200	18.6
Board and care, large	200	18.6
<b>Storage Use</b>	-	-
In storage occupancies	MP	MP
In mercantile occupancies	300	27.9
In other than storage and mercantile occupancies	500	46.5

MP: The occupant load is the maximum probable number of occupants present at any time.

<sup>a</sup>All factors are expressed in gross area unless marked "net."

<sup>b</sup>See A.7.3.1.2.

<sup>c</sup>For determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft<sup>2</sup> (3.7 m<sup>2</sup>) of gross floor area of sales space.

<sup>d</sup>For determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.292, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

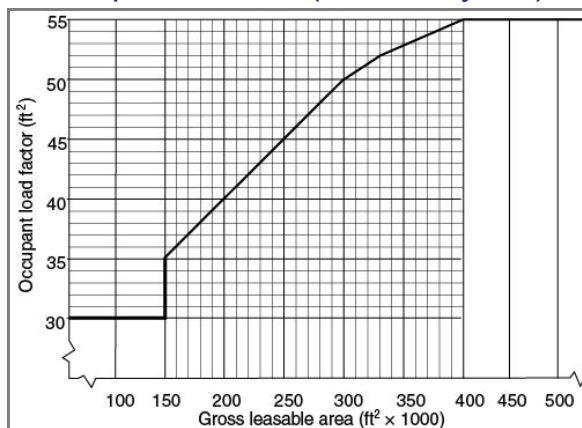
<sup>e</sup>For any food court or other assembly use areas located in the mall concourse that are not included as a portion of the gross leasable area of the mall structure, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall concourse area is not required to be assigned an occupant load.

<sup>f</sup>The portions of the mall concourse not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall concourse are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor buildings) by the appropriate lowest whole number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).

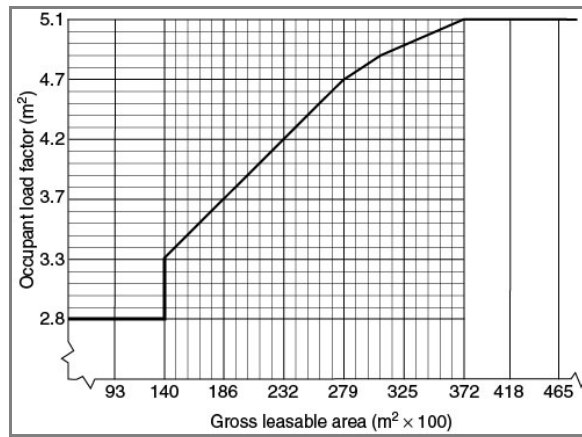
Each individual tenant space is required to have means of egress to the outside or to the mall concourse based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.

Each individual anchor store is required to have means of egress independent of the mall concourse.

**Figure 7.3.1.2(a) Mall Structure Occupant Load Factors (US Customary Units).**



**Figure 7.3.1.2(b) Mall Structure Occupant Load Factors (SI Units).**



### Statement of Problem and Substantiation for Public Input

Big box retail will rarely have the occupant load of 60 square feet per person even on Black Friday. As an example, a Walmart Supercenter of approximately 195,000 square feet has a retail occupant load of approximately 4500 when calculated at 30 square feet per person based on the available area used for the retail sales portion of the building. The likelihood of a store this size having 4500 people in it even on Black Friday is negligible. A more realistic occupant load for a store this size would be half of that, or 60 square feet per person.

Class B and C mercantile occupancies would be excluded from this occupant load factor as the reality of having a larger occupant load in a smaller retail space will happen. The Class A mercantile occupancies would have the area to allow for the larger occupant load factor and not overwhelm the egress system or approach the calculated occupant load with a 30 square foot per person factor.

### Submitter Information Verification

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**State:**  
**Zip:**  
**Submittal Date:** Thu Feb 15 10:08:05 EST 2024  
**Committee:** SAF-MEA



**Public Input No. 41-NFPA 101-2024 [ Section No. 7.3.1.2 ]**

A large, empty rectangular box with a thin border, intended for public input or comments.

**Add "Museums" in Table 7.3.1.2 with load factors of 100 ft<sup>2</sup> net per person.**

Table 7.3.1.2\* Occupant Load Factor.

The occupant load in any building or portion thereof shall be not less than the number of persons determined by dividing the floor area assigned to that use by the occupant load factor for that use as specified in Table 7.3.1.2, Figure 7.3.1.2(a), and Figure 7.3.1.2(b). Where both gross and net area figures are given for the same occupancy, calculations shall be made by applying the gross area figure to the gross area of the portion of the building devoted to the use for which the gross area figure is specified and by applying the net area figure to the net area of the portion of the building devoted to the use for which the net area figure is specified.

Table 7.3.1.2 Occupant Load Factor

<u>Use</u>	<u>ft<sup>2</sup> per person<sup>a</sup></u>	<u>m<sup>2</sup> per person<sup>a</sup></u>
<b>Assembly Use</b>	-	-
Concentrated use, without fixed seating	7 net	0.65 net
Less concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Use number of fixed seats	Use number of fixed seats
Waiting spaces	See 12.1.7.2 and 13.1.7.2.	See 12.1.7.2 and 13.1.7.2.
Kitchens	100	9.3
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms with equipment	50	4.6
Exercise rooms without equipment	15	1.4
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
-	-	-
<b>Business Use (other than below)</b>	150	14
Concentrated business use <sup>b</sup>	50	4.6
Airport traffic control tower observation levels	40	3.7
Collaboration rooms/spaces ≤450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	30	2.8
Collaboration rooms/spaces >450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	15	1.4
<b>Day-Care Use</b>	35 net	3.3 net
<b>Detention and Correctional Use</b>	120	11.1
<b>Educational Use</b>	-	-
Classrooms	20 net	1.9 net
Shops, laboratories, vocational rooms	50 net	4.6 net
<b>Health Care Use</b>	-	-
Inpatient treatment departments	240	22.3
Sleeping departments	120	11.1
Ambulatory health care	150	14
<b>Industrial Use</b>	-	-
General- and high-hazard industrial	100	9.3
Special-purpose industrial	MP	MP
<b>Mercantile Use</b>	-	-
Sales area on street floor <sup>c,d</sup>	30	2.8
Sales area on two or more street floors <sup>d</sup>	40	3.7
Sales area on floor below street floor <sup>d</sup>	30	2.8
Sales area on floors above street floor <sup>d</sup>	60	5.6
Floors or portions of floors used only for offices	See business use.	See business use.

Use	ft <sup>2</sup> per person <sup>a</sup>	m <sup>2</sup> per person <sup>a</sup>
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall structures <sup>e</sup>	Per factors applicable to use of space <sup>f</sup>	-
<b>Residential Use</b>	-	-
Hotels and dormitories	200	18.6
Apartment buildings	200	18.6
Board and care, large	200	18.6
<b>Storage Use</b>	-	-
In storage occupancies	MP	MP
In mercantile occupancies	300	27.9
In other than storage and mercantile occupancies	500	46.5

MP: The occupant load is the maximum probable number of occupants present at any time.

<sup>a</sup>All factors are expressed in gross area unless marked "net."

<sup>b</sup>See A.7.3.1.2.

<sup>c</sup>For determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft<sup>2</sup> (3.7 m<sup>2</sup>) of gross floor area of sales space.

<sup>d</sup>For determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.292, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

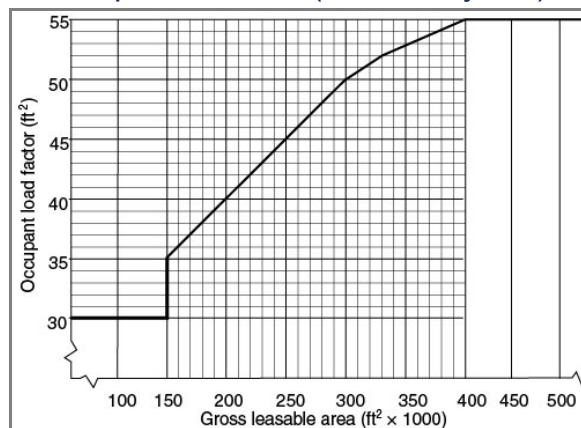
<sup>e</sup>For any food court or other assembly use areas located in the mall concourse that are not included as a portion of the gross leasable area of the mall structure, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall concourse area is not required to be assigned an occupant load.

<sup>f</sup>The portions of the mall concourse not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall concourse are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor buildings) by the appropriate lowest whole number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).

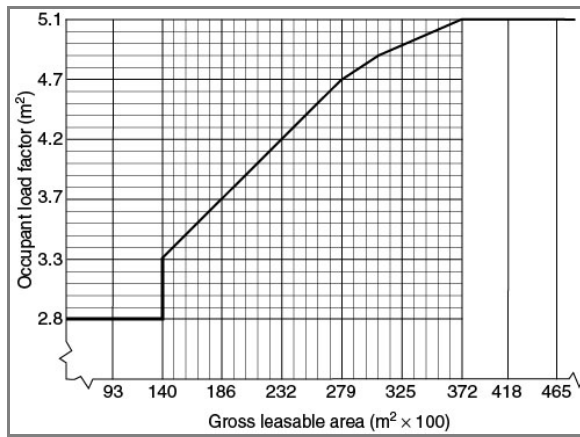
Each individual tenant space is required to have means of egress to the outside or to the mall concourse based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.

Each individual anchor store is required to have means of egress independent of the mall concourse.

**Figure 7.3.1.2(a) Mall Structure Occupant Load Factors (US Customary Units).**



**Figure 7.3.1.2(b) Mall Structure Occupant Load Factors (SI Units).**



### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101_Public_Input_2024_XX.docx	Supporting Documentation	

### Statement of Problem and Substantiation for Public Input

6.1.2.1 Definition – Assembly Occupancy does not clearly state deferred occupancy classification to Business Occupancy if the Occupancy Load is under 50 persons.

Table 7.3.1.2 does not always portray expected population of facilities accurately, or in some cases, omits listing some occupancies altogether. Such is the case for Museums. Museums are classified as Assembly Occupancies but are not addressed in the Occupancy Load Calculation Table.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 32-NFPA 101-2024 [Section No. 6.1.2.1]	Reference each other

### Submitter Information Verification

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**Street Address:**  
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**Submittal Date:** Wed Mar 20 12:39:14 EDT 2024  
**Committee:** SAF-MEA



## **Public Input for the next edition (Annual)**

Public Input Closing date: June 4, 2024

Questions - 800-344-3555

### **Subject of Input: NFPA 101**

#### **Table 7.3.21.2 Occupancy Load Factors**

##### **Issues:**

**6.1.2.1 Definition – Assembly Occupancy** does not clearly state deferred occupancy classification to Business Occupancy if the Occupancy Load is under 50 persons.

**Table 7.3.1.2** does not always portray expected population of facilities accurately, or in some cases, omits listing some occupancies altogether. Such is the case for Museums. Museums are classified as Assembly Occupancies but are not addressed in the Occupancy Load Calculation Table.

##### **Effects of these omissions:**

Referencing other Codes and Standards to determine a reasonable population density we find that Museums have been determined to have a density of less than 30sf Net/person. Currently there are efforts to reset that density at as low as 100sf Net /person which is a reasonable load factor well researched and documented. However, without an established density set forth within the body of the LIFE SAFETY CODE some AHJ have indicated it is not within their authority to look outside the CODE for justification of occupancy loads. As a result, Museums have been given density loads as high as 15sf Net/person.

Small wood framed structures Historically Significant structures that are used as part of Museum venues and having public spaces less than 1500sf Net, can be greatly affected by these obviously incorrect, heavier density loadings. An Assembly classification does not allow wood framed structures to have occupancy below grade without in installation of an automatic fire suppression system. These systems, which in many cases are either not available due to lack of required water volumes, or, if such installations were to be implemented would have a negative impact on the historic nature and character of the facility. It is also highly questionable whether such installations would provide any significant increase in life safety for the public based on availability of short exit ways. Similar issues arise with requirements for enclosed exit shafts and unduly wide exit widths required for higher populations. Even an attempt at installation of a simple Handclapped Chair Lift in association with an exit way has been thwarted by Assembly Occupancy restrictions in a small, open plan, garden level exhibition hall.

## **INPUT:**

Modify **Table 7.3.1.2** to better reflect population densities expected in Museums and Libraries. In the case of smaller, historic, or facilities displaying sensitive or fragile elements, means of density control are typically and easily obtained by controlling access to the facility and numbers of individuals in guided tours. Museums and Libraries Stacks should have similar load factors of densities below 100sf Net/person.

Another option is to consider simply designating Museums and Libraries as Business Occupancies.

## **REFERENCES**

### **NFPA 101**

#### **6.1.2.1\* Definition - Assembly Occupancy**

An Occupancy (1) used for a gathering of **50 or more persons** for deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation, or similar uses, or (2) used as a special amusement building, regardless of occupancy load.

#### **Table 7.3.1.2 Occupancy Load Factor**

##### **Assembly Use**

Although numerous **Assembly Uses** and their respective load factors are specifically listed, other **common uses are NOT represented**. This leads to speculation and most times the extremely conservative load factors demanded by AHJ.

## **REQUESTED MODIFICATIONS:**

#### **6.1.2.1 Definitions – Assembly Occupancy**

**ADD:** Occupancy loads calculated to be less than 50 persons shall be classified as Business Occupancies and retain their Load factors as determined as Assemblies in accordance with Table 7.3.1.2

#### **Table 7.3.1.2 Occupancy Load Factor Assembly Use**

**INCLUDE:** Museums with a Load Factor of **100sf NET/person**.

## **A Case in Point:**

Small, Historically Significant, Community Center recently re-purposed as a free standing, exhibition gallery as part of a museum complex. Total Net Public Space is between 1200 sf and 1300 sf. The gallery is a wood frame structure that has been moved onto a pour concrete lower level reflective of the former foundation having its floor level only six and a half foot below grade thereby providing ample daylighting to the lower level. The nature of the facility and the fragility of the displays require that it be not only highly monitored, but that very limited and control access to limited and strictly enforced.

### ***The Project Concept:***

- **Provide a second, handicapped accessible, exit serving the Gallery and Garden Levels of an existing, small Historic Community Center being converted to an Exhibit Hall for highlighting the historic uses of the facility and of the ethnic community that built it.**
- New addition shall provide a simplified, circulation and “Way Finding” path through both the Gallery and Garden Levels of the facility as well a secondary means of egress from both levels.
- All public areas are to be open plan with full visibility of the Mezzanine stairways.
- The facility is part of a museum which includes numerous Exhibition Structures, Vast Outdoors Displays and numerous Visitor Participation Opportunities.
- The historic character and original operations of the facility itself are to be major features of the hall.
- The Museum complex is sited on over 250 acres. The average visitation rate is 23 visitors daily.
- Only guided tours shall be permitted due to the delicacy and historic nature of the exhibits. Tours are to be limited to 25 individuals. Additional docents will be added as disabled visitors require.
- All exterior doors of the facility provide limited access from the exterior and shall be provided with panic hardware internally.
- Monitoring is already being provided, both internally and on the exterior, 24/7 via video cameras and an extensive ION detection system. *Site is manned 24/7 by a Caretaker in-residence on the Museum grounds.*
- Doors of all ancillary spaces shall be restricted from public access and shall be treated in a manner as to minimize their presents. *(Zero Frame Doors)*
- The farthest exit travel distance shall be less than 60 feet.
- Display cases, dioramas, antiquities, and memorabilia will occupy approximately 50 percent of the areas to be accessible to the public.

### ***The Dilemma:***

1. Because there was no designated load factor for a museum listed in Table 7.3.1.2, the Architect referenced several Building Codes in his permit submittals that established load factors for museums at 30sf Net/person and thus, because of the limited population of the facility, he felt the facility would justifiably revert to the classification of a Business Occupancy. The actual load is much lower due to the Museums insistence that the public population of the structure be limited to no more than 25 persons and they are always accompanied by an appropriate number of docents. However, the AHJ used 15 SF net/person as indicated for an Assembly Occupancy of “Less concentrated use, without fixed seating”. Hence the **design was rejected by the AHJ**.
2. With a classification of Assembly, the wood frame structure, Type V, precluded the use of the lower level, which is only 6 feet below grade and has accessible windows, without the installation of an **Automatic Fire Suppression System** for the entire facility.
3. The exit stairs at the two extremities of the facility would be required to be housed within “**Protected Shafts**”.
4. The proposed installation of a Handicapped Chair Lift, the initial reason for the facility upgrade and source of a major portion of the project funding, was not to be permitted within one of the Exit Stair Shaft and would be required to be housed in a **separate “Elevator Shaft”** not associated with the Exit Stairs.

### ***Architect's issues:***

1. A less dense occupancy load of 30 SF net/person would have put the occupancy load well below 50 persons, thus putting the facility into the default classification as a Business Occupancy as the Architect had reason to believe would be the case.
2. Well documented “Fire Science” has led the vast majority of Code Development and Implementation agencies\*\* to set the occupancy load for **Museums** at densities levels of 30 Sf net/person and are currently considering lessening the density to 100 SF Net/person. These less dense loadings approximate those of Libraries and Library Stacks in Table 7.3.1.2 of the Life Safety Code.
3. The Business Occupancy classification better reflects the Fire and Life Safety issues present in Museums. Using Chapter 38/39 Business Occupancy, the guidelines presented there are nearly identical to those for museums in the major Model Building Codes. \*\*

\*\* ICC, IBC, NBC, UBC, Southern, BOCA, ...etc.

**As the “Case in Point” Project now stands:**

- The Architect has advised his clients to postpone any drastic measures that would degrade the character of the Hall and hamper any future possibilities for developing the facility to its full potential.
- Client has had a temporary “Fire Wall” equipped with a “Fire Door” installed across the single stairway leading to the lower level via an exit mezzanine and limiting the occupancy of the Garden Level to that of “Storage.”
- All exterior doors have always been provided with panic hardware.

Submitted by;

**Jack Green**, Architect  
Architectural Cadre’ LLC  
1612 South 99<sup>th</sup> Street  
Omaha, Nebraska 68124

402 660 7669 cell



**Public Input No. 50-NFPA 101-2024 [ Section No. 7.3.1.2 ]**

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**7.3.1.2\*** Occupant Load Factor.

The occupant load in any building or portion thereof shall be not less than the number of persons determined by dividing the floor area assigned to that use by the occupant load factor for that use as specified in Table 7.3.1.2, Figure 7.3.1.2(a), and Figure 7.3.1.2(b). Where both gross and net area figures are given for the same occupancy, calculations shall be made by applying the gross area figure to the gross area of the portion of the building devoted to the use for which the gross area figure is specified and by applying the net area figure to the net area of the portion of the building devoted to the use for which the net area figure is specified.

Table 7.3.1.2 Occupant Load Factor

<u>Use</u>	<u>ft<sup>2</sup> per person<sup>a</sup></u>	<u>m<sup>2</sup> per person<sup>a</sup></u>
<b>Assembly Use</b>	-	-
Concentrated use, without fixed seating	7 net	0.65 net
Less concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Use number of fixed seats	Use number of fixed seats
Waiting spaces	See 12.1.7.2 and 13.1.7.2.	See 12.1.7.2 and 13.1.7.2.
Kitchens	100	9.3
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms with equipment	50	4.6
Exercise rooms without equipment	15	1.4
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
-	-	-
<b>Business Use (other than below)</b>	150	14
Concentrated business use <sup>b</sup>	50	4.6
Airport traffic control tower observation levels	40	3.7
Collaboration rooms/spaces ≤450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	30	2.8
Collaboration rooms/spaces >450 ft <sup>2</sup> (41.8 m <sup>2</sup> ) in area <sup>b</sup>	15	1.4
<b>Day-Care Use</b>	35 net	3.3 net
<b>Detention and Correctional Use</b>	120	11.1
<b>Educational Use</b>	-	-
Classrooms	20 net	1.9 net
Shops, laboratories, vocational rooms	50 net	4.6 net
<b>Health Care Use</b>	-	-
Inpatient treatment departments	240	22.3
Sleeping departments	120	11.1
Ambulatory health care	150	14
<b>Industrial Use</b>	-	-
General- and high-hazard industrial	100	9.3
Special-purpose industrial	MP	MP
<b>Mercantile Use</b>	-	-
Sales area- on street floor <sup>c,d</sup>	30	2.8
Sales area on two or more street floors <sup>d</sup>	40	3.7
Sales area on floor below street floor <sup>d</sup>	30	2.8
Sales area on floors above street floor <sup>d</sup>	60	5.6
Floors or portions of floors used only for offices	See business use.	See business use.



Use	ft <sup>2</sup> per person <sup>a</sup>	m <sup>2</sup> per person <sup>a</sup>
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall structures <sup>e</sup>	Per factors applicable to use of space <sup>f</sup>	-
<b>Residential Use</b>	-	-
Hotels and dormitories	200	18.6
Apartment buildings	200	18.6
Board and care, large	200	18.6
<b>Storage Use</b>	-	-
In storage occupancies	MP	MP
In mercantile occupancies	300	27.9
In other than storage and mercantile occupancies	500	46.5

MP: The occupant load is the maximum probable number of occupants present at any time.

<sup>a</sup>All factors are expressed in gross area unless marked "net."

<sup>b</sup>See A.7.3.1.2.

<sup>c</sup> For determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft<sup>2</sup> (3.7 m<sup>2</sup>) of gross floor area of sales space.

<sup>d</sup> For determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.292, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

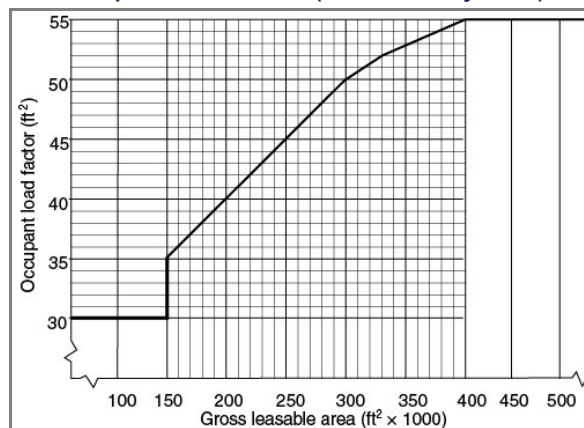
<sup>e</sup> For c For any food court or other assembly use areas located in the mall concourse that are not included as a portion of the gross leasable area of the mall structure, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall concourse area is not required to be assigned an occupant load.

<sup>f</sup> d The portions of the mall concourse not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall concourse are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor buildings) by the appropriate lowest whole number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).

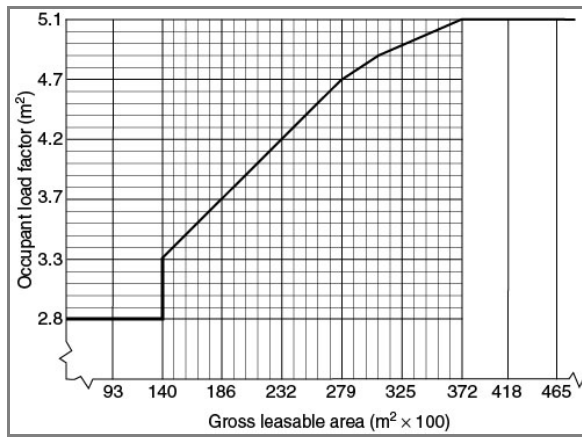
Each individual tenant space is required to have means of egress to the outside or to the mall concourse based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.

Each individual anchor store is required to have means of egress independent of the mall concourse.

**Figure 7.3.1.2(a) Mall Structure Occupant Load Factors (US Customary Units).**



**Figure 7.3.1.2(b) Mall Structure Occupant Load Factors (SI Units).**



### Statement of Problem and Substantiation for Public Input

This is a difference between this table and the International Building Code table 1004.5. These differences between the building and fire codes lead to confusion and ultimately the Building Official is signing off on the Certificate of Occupancy. Understanding the most stringent takes effect but there is debate as to which is more stringent. Many believe that the 60 occupant load factor will decrease the number of people allowed in a building which makes it safer and many believe that the 30 occ load factor makes the engineer/architect of record design the building with more exiting capacity with a higher occ load. This again is leading to two separate occ load calculations and two occ load numbers. As-is, this is a difference between the two codes.

### Submitter Information Verification

**Submitter Full Name:** Tommy Demopoulos  
**Organization:** Tamarac Fire Rescue  
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**State:**  
**Zip:**  
**Submittal Date:** Mon Mar 25 12:38:14 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 285-NFPA 101-2024 [ Section No. 7.4.2 ]

### 7.4.2 Spaces About Electrical Equipment.

#### 7.4.2.1 1000 Volts, Nominal, or Less.

##### 7.4.2.1.1 Number of Means of Egress.

The minimum number of means of egress for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with 110.26(C) of *NFPA 70*.

##### 7.4.2.1.2 Door Unlatching and Direction of Door Swing.

The method of door unlatching and direction of door swing for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with ~~with~~ the following sections of *NFPA 70*.

(1) [110.26\(C\)\(3\)](#)

of *NFPA 70*.

(1)

(2) [450.43\(C\)](#)

(3) [480.10\(E\)](#)

(4) [646.19](#)

#### 7.4.2.2 Over 1000 Volts, Nominal.

##### 7.4.2.2.1 Number of Means of Egress.

The minimum number of means of egress for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with 110.33(A) of *NFPA 70*.

##### 7.4.2.2.2 Door Unlatching and Direction of Door Swing.

The method of door unlatching and direction of door swing for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with ~~110. with~~ the following sections of *NFPA 70*.

(1) [110.31\(A\)\(4\)](#)

(2) [110.33\(A\)\(3\)](#)

of *NFPA 70*.

(1)

(2) [450.43\(C\)](#)

(3) [480.10\(E\)](#)

(4) [646.19](#)

## Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101-2027_Doors_of_Spaces_About_Electrical_Equipment_Proposal_20240603.pdf	PDF of PI 285 illustrating the proposed revisions.	

## Statement of Problem and Substantiation for Public Input

This proposal is intended to be editorial and to more closely mesh NFPA 101 with the requirements in NFPA 70 National Electrical Code.

These sections of NFPA 70 have requirements regarding the direction doors are required to swing:

- 110.26(C)(3) – electrical equipment rooms, enclosures, or vaults for 1000 volts or less
- 110.31(A)(4) – electrical equipment vaults for more than 1000 volts
- 110.33(A)(3) – electrical equipment rooms or enclosures for more than 1000 volts
- 450.43(C) – transformer vaults
- 480.10(E) – batteries and energy storage systems

6. 646.19 – modular data centers

**Submitter Information Verification**

**Submitter Full Name:** John Woestman  
**Organization:** Kellen Company  
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**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Mon Jun 03 20:27:22 EDT 2024  
**Committee:** SAF-MEA

## **7.4.2 Spaces About Electrical Equipment.**

### **7.4.2.1 1000 Volts, Nominal, or Less.**

#### **7.4.2.1.1 Number of Means of Egress.**

The minimum number of means of egress for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with 110.26(C) of [NFPA 70](#).

#### **7.4.2.1.2 Door Unlatching and Direction of Door Swing.**

The method of door unlatching and direction of door swing for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with [the following sections 110.26\(C\)\(3\)](#) of *NFPA 70*.

1. [110.26\(C\)\(3\)](#)
2. [450.43\(C\)](#)
3. [480.10\(E\)](#)
4. [646.19](#)

### **7.4.2.2 Over 1000 Volts, Nominal.**

#### **7.4.2.2.1 Number of Means of Egress.**

The minimum number of means of egress for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with 110.33(A) of *NFPA 70*.

#### **7.4.2.2.2 Door Unlatching and Direction of Door Swing.**

The method of door unlatching and direction of door swing for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with [the following sections 110.33\(A\)\(3\)](#) of *NFPA 70*.

1. [110.31\(A\)\(4\)](#)
2. [110.33\(A\)\(3\)](#)
3. [450.43\(C\)](#)
4. [480.10\(E\)](#)
5. [646.19](#)

**A.7.2.1.4.2** See 7.4.2.1.2 and 7.4.2.2.2 for door swing direction requirements for working space about electrical equipment.

#### **Reason:**

This proposal is intended to be editorial and to more closely mesh NFPA 101 with the requirements in NFPA 70 National Electrical Code.

These sections of NFPA 70 have requirements regarding the direction doors are required to swing:

1. 110.26(C)(3) – electrical equipment rooms, enclosures, or vaults for 1000 volts or less
2. 110.31(A)(4) – electrical equipment vaults for more than 1000 volts
3. 110.33(A)(3) – electrical equipment rooms or enclosures for more than 1000 volts
4. 450.43(C) – transformer vaults
5. 480.10(E) – batteries and energy storage systems
6. 646.19 – modular data centers



## Public Input No. 296-NFPA 101-2024 [ New Section after 7.5 ]

### TITLE OF NEW CONTENT

Type your content here ...Add new section 7.17 Accessible Means of Egress

#### **7.17 Accessible Means of Egress .**

7.17.1\* Areas required by the building code to be accessible, other than in existing buildings, shall have not less than two accessible means of egress, unless otherwise provided in 7.17.1 through 7.17.1.4.

7.17.1.1 Access within the allowable travel distance shall be provided to not less than one accessible area of refuge or one accessible exit providing an accessible route to an exit discharge.

7.17.1.2 A single accessible means of egress shall be permitted from buildings or areas of buildings permitted to have a single means of egress .

7.17.1.3 Accessible means of egress shall not be required where permitted by Chapters 11 through 43.

7.17.1.4 Exit access travel along the accessible means of egress shall be permitted to be common for the distances permitted as common paths of travel .

7.17.2 Accessible means of egress shall consist of one or more of the following components:

- (1) Accessible routes
- (2) Doors in accordance with 7.2.2 and 7.17.4
- (3) Smokeproof enclosures in accordance with 7.2.3
- (4) Horizontal exits complying with 7.2.4
- (5) Exits in accordance with 7.1.3.
- (6) Elevators complying with 7.17.8.
- (7) Stairs in accordance with 7.17.7
- (8) Ramps in accordance with 7.2.5.
- (9) Areas of refuge in accordance with 7.17.10
- (10) Platform lifts complying with 7.17.11.
- (11) Exterior areas of assisted rescue complying with 7.17.12

7.17.4 Accessible routes, stairs, doors, ramps, elevators, and platform lifts in accordance with 7.17.2 shall conform to ICC A117.1, Accessible and Usable Buildings and Facilities.

7.17.5 Each required accessible means of egress shall be continuous from each accessible occupied area to a public way.

7.17.6 Accessible Exits. Items (a) through (f) of 7.17.2 shall be permitted as accessible exits.

#### 7.17.7 Stairs

7.17.7.1 Stairs connecting two stories or connecting mezzanines shall be permitted as accessible means of egress. Stairs connecting two levels within the same story are not permitted as accessible means of egress.

7.17.7.2 Where an exit stair is used as a component of an accessible means of egress, it shall comply with be accessed from an area of refuge complying with 7.17.10.

#### 7.17.8 Elevators

7.17.8.1 Accessible stories that are four or more stories above or below a story of exit discharge shall have not less than one elevator complying with 7.17.8.

7.17.8.2 To be considered part of an accessible means of egress, an elevator shall be in accordance with 7.2.12.2.4.

7.17.8.3\* Where an elevator provides access from an area of refuge to a public way that is in accordance with 7.17.10, all of the following criteria shall be met:

- (1) The elevator shall be approved for fire fighters' emergency operations as provided in ASME A17.1/CSA B44, Safety Code for Elevators and Escalators.
- (2) The power supply shall be protected against interruption from fire occurring within the building but outside the area of refuge.
- (3) The elevator shall be located in a shaft system meeting the requirements for smokeproof enclosures in accordance with 7.2.3, unless otherwise provided in 7.17.8.4.1, 7.17.8.4.2, and 7.17.8.4.3.

7.17.8.4.1 The smokeproof enclosure shall not be required in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

7.17.8.4.2 The smokeproof enclosure shall not be required for areas of refuge that are more than 1000 ft<sup>2</sup> (93 m<sup>2</sup>) and that are created by a horizontal exit meeting the requirements of 7.2.4.

7.17.8.4.3 The smokeproof enclosure shall not be required for elevators complying with 7.17.10.3.

7.17.8.4.5 The area of refuge shall be provided with a two-way communication system for communication between the area of refuge and a central control point. The door opening to the stair enclosure or the elevator door and the associated portion of the area of refuge that the stair enclosure door opening or elevator door serves shall be identified by signage. (See 7.17.10.3.5)

7.17.8.4.6\* Instructions for summoning assistance, via the two-way communication system, and written identification of the area of refuge location shall be posted adjacent to the two-way communication system.

7.17.9 To be considered part of an accessible means of egress, a smoke barrier in accordance with Section 8.5 with not less than a 1-hour fire resistance rating, or a horizontal exit in accordance with 7.2.4, shall discharge to an area of refuge in accordance with 7.2.12.

7.17.10 Accessible Areas of Refuge.

7.17.10.1 General.

7.17.10.1.1 An area of refuge used as part of a required accessible means of egress; consisting of a story in a building that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7; and having an accessible story that is one or more stories above or below a story of exit discharge shall meet the following criteria:

(1) Each elevator landing shall be provided with a two-way communication system for communication between the elevator landing and the fire command center or a central control point approved by the authority having jurisdiction.

(2) Directions for the use of the two-way communication system, instructions for summoning assistance via the two-way communication system, and written identification of the location shall be posted adjacent to the two-way communication system. Directions shall comply with ICC A117.1 Accessible and Usable Buildings and Facilities, for signs.

(3) The two-way communication system shall include both audible and visible signals.

7.17.10.1.2 An area of refuge used as part of a required accessible means of egress in other than a building that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7 shall meet both of the following criteria:

(1) The area of refuge shall meet the general requirements of Section 7.1.

(2) The area of refuge shall meet the requirements of 7.17.10.2 and 7.17.10.3.

7.17.10.2 Accessibility.

7.17.10.2.1 Required portions of an area of refuge shall be accessible from the space they serve by an accessible means of egress.

7.17.10.2.2 Required portions of an area of refuge shall have access to a public way via an exit or an elevator without requiring return to the building spaces through which travel to the area of refuge occurred.

7.17.10.2.3\* Where the exit providing egress from an area of refuge to a public way that is in accordance with 7.17.10.2.2 includes stairs, the clear width of landings and stair flights, measured between handrails and at all points below handrail height, shall be not less than 48 in. (1220 mm), unless otherwise permitted by the following:

(1) The minimum 48 in. (1220 mm) clear width shall not be required where the area of refuge is separated from the remainder of the story by a horizontal exit meeting the requirements of 7.2.4. (See also 7.2.12.3.4.)

7.17.10.3 Details.

7.17.10.3.1\* Each area of refuge shall be sized to accommodate one wheelchair space of 30 in. × 54 in. (760 mm × 1372 mm) for every 200 occupants, or portion thereof, based on the occupant load served by the area of refuge. Such wheelchair spaces shall maintain the width of a means of egress to not less than that required for the occupant load served and to not less than 36 in. (915 mm).

7.17.10.3.2\* For any area of refuge that does not exceed 1000 ft<sup>2</sup> (93 m<sup>2</sup>), it shall be demonstrated by calculation or test that tenable conditions are maintained within the area of refuge for a period of 15 minutes when the exposing space on the other side of the separation creating the area of refuge is subjected to the maximum expected fire conditions.

7.17.10.3.3 Access to any designated wheelchair space in an area of refuge shall not pass through more than one adjoining wheelchair space.

7.17.10.3.4 New fire door assemblies serving an area of refuge shall be smoke leakage-rated in accordance with 8.2.2.4.

7.17.10.3.5 Signage

7.17.10.3.5.1 Each area of refuge shall be identified by a sign that reads as the follows:

AREA OF REFUGE

7.17.10.3.5.2 The sign required by 7.17.10.3.5.1 shall conform to the requirements of ICC A117.1, Accessible and Usable Buildings and Facilities, for such signage and shall display the international symbol of accessibility.

Signs also shall be located as follows:

- (1) At each door opening providing access to the area of refuge
- (2) At all exits not providing an accessible means of egress, as defined in 3.3.178.1
- (3) Where necessary to indicate clearly the direction to an area of refuge

7.17.10.3.5.3 Signs required by 7.17.10.3.5.1 shall be illuminated as required for special signs in accordance with 7.10.8.1.

7.17.10.3.5.4 Tactile signage complying with ICC A117.1, Accessible and Usable Buildings and Facilities, shall be located at each door opening to an area of refuge.

7.17.11 Platform Lifts. Where platform lifts are permitted in an accessible route by the building code, platform lifts shall be permitted as accessible means of egress. Platform lifts shall be provided with standby power in accordance with 9.1.3.

7.17.12 Exterior Areas of Assisted Rescue. Exterior areas of assisted rescue shall be accessed by an accessible route and .

7.17.12.1 Two-way Communication System. Two-way communication shall be provided at exterior areas of assisted rescue for initiating communication with the fire command center or an alternative location approved by the fire department.

7.17.12.1.1 Design and Installation. A two-way communication system shall be provided at exterior areas of assisted rescue and shall include audible and visible signals. The system shall be designed and installed in accordance with the requirements of ICC A117.1, Accessible and Usable Buildings and Facilities.

7.17.12.2 Instructions. Instructions for summoning assistance, via the two-way communication system, and written identification of the exterior area of assisted rescue location shall be posted adjacent to the two-way communication system.

7.17.12.2.2 Signage for instructions to use the two-way communication shall comply with the requirements of ICC A117.1, Accessible and Usable Buildings and Facilities, for visual characters.

## Statement of Problem and Substantiation for Public Input

The current accessible means of egress provisions are difficult to navigate and to apply. The current provisions do not state what elements are permitted as accessible means of egress. Furthermore, the provisions in 7.2.12 and 7.5.4 have duplicate or potentially conflict text. For example, 7.5.4.2 through 7.5.4.2.3 for exit separation of accessible means of egress are redundant to other sections in 7.5.

The proposed revision consolidates accessible means of egress provisions into one section. Although areas of refuge are egress components that have been included in 7.2, they are specifically accessible means of egress and thus belong in the dedicated section. The submitter acknowledges that the occupancy chapters have references to 7.2.12 for areas of refuge. The submitter endeavors for the occupancy chapters to reference 7.17 as amend as needed.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 288-NFPA 101-2024 [Section No. 3.3.25 [Excluding any Sub-Sections]]	Definition of area of refuge

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**Committee:** SAF-MEA





## Public Input No. 136-NFPA 101-2024 [ Section No. 7.7.1.1 ]

### 7.7.1.1

Yards, courts, open spaces, or other portions of the exit discharge shall be of the required width and size with easy topography and sufficient ground stability to provide all occupants with a safe access to a public way.

### Statement of Problem and Substantiation for Public Input

The problem is that if construction occurs in the exit discharge that makes soft soil or mud, there is not a specific code reference. There should be basic guidance for topography for an exit discharge that does not have excessive incline similar to an obstacle course.

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**Committee:** SAF-MEA



## Public Input No. 172-NFPA 101-2024 [ Section No. 7.8.1.1 ]

### 7.8.1.1\*

Illumination of means of egress shall be provided in accordance with Section 7.8 for every building and structure where required in Chapters 11 through 43. For the purposes of this requirement, exit access shall include only designated stairs, aisles, aisle accessways per section 12.2.5.7.10, corridors, ramps, escalators, and passageways leading to an exit. For the purposes of this requirement, exit discharge shall include only designated stairs, aisles, corridors, ramps, escalators, walkways, and passageways leading to a public way.

### Statement of Problem and Substantiation for Public Input

This change is for coordination with changes proposed to 12.2.5.7.10 Steps in Aisle Accessways.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 171-NFPA 101-2024 [New Section after 12.2.5.7]</u>	require illumination in some aisle accessways

### Submitter Information Verification

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## Public Input No. 190-NFPA 101-2024 [ Section No. 7.15.1.2 ]

### 7.15.1.2

The provisions of Section 7.15 shall not apply where the limited or supervised use of elevators for evacuation is part of a formal or informal evacuation strategy, including the relocation or evacuation of patients in health care occupancies and the relocation or evacuation of occupants ~~with disabilities in~~ that require a high level of supervision in other occupancies.

### Statement of Problem and Substantiation for Public Input

Occupant Evacuation Elevators are designed to be used by occupants with disabilities such as people who use wheelchairs who are unable to use the stairs to exit a building during an emergency. The current code is a contradiction to the intent of Occupant Evacuation Operation as it prohibits those who need it most from using it. The proposed revision would only limit use if someone required a high level of supervision (such as a nursing home, memory care facility, penal institution, etc.).

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## Public Input No. 191-NFPA 101-2024 [ Section No. 7.15.8.3 ]

### 7.15.8.3\*

Control signaling wiring and cables that do not serve Phase II emergency in-car service or Occupant Evacuation Operation shall not be required to be protected.

### Statement of Problem and Substantiation for Public Input

Wiring for Occupant Evacuation Elevators are required to be protected to allow the elevators to run on Occupant Evacuation Operation during a fire emergency.

### Submitter Information Verification

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**Committee:** SAF-MEA



## Public Input No. 361-NFPA 101-2024 [ New Section after A.3.3.177.1 ]

### A 3.3.180

an unobstructed way of travel should have a clear pathway with direct line of sight without blind corners and obstacles or unexpected protrusions.

### Statement of Problem and Substantiation for Public Input

Features that stick out that meet ADA but cause a blind corner in the means of egress.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 360-NFPA 101-2024 [New Section after 3.3]</a>	New Definition or Annex Options.
<a href="#">Public Input No. 360-NFPA 101-2024 [New Section after 3.3]</a>	

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## Public Input No. 40-NFPA 101-2024 [ Section No. A.7.1.3.2.1(9)(d) ]

### A.7.1.3.2.1(9)(d c)

This provision will allow security cameras, public address systems, emergency communication systems, telephone repeaters and similar life safety devices in the exit enclosure, and wiring and similar pathways for such devices, to penetrate the fire barrier serving the exit enclosure. It is the intent of this provision to prevent the exit enclosure from being used as a vertical chase for building services.

### Statement of Problem and Substantiation for Public Input

I think this annex note was intended to go with it (c) and not (d). The only intended change here is to move the annex note to the correct section.

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## Public Input No. 284-NFPA 101-2024 [ New Section after A.7.1.10.1 ]

### **A 7.2.1.1.3.2**

When a building is not considered occupied, per the criteria in 7.2.1.1.3.1, the ability of occupants to egress may be of great consequence. Consider the skeleton crew of employees that may be in a business after hours. Also, consider responding emergency personnel, such as firefighters, who may need to egress a building through a door other than the door in which they entered.

### **Statement of Problem and Substantiation for Public Input**

The proposed Annex note for discusses the importance of occupants within a building not considered occupied being able to exit the building, and of responding emergency personnel to be able to egress through doors other than which they entered the building.

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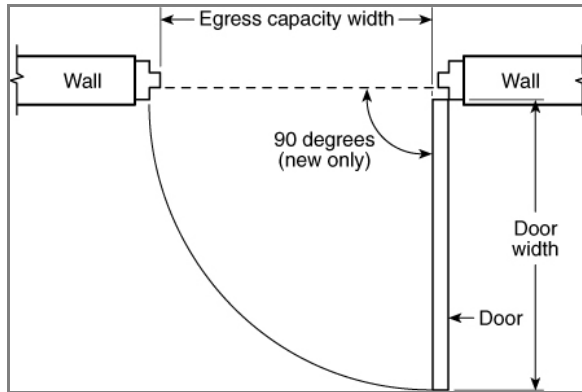


Public Input No. 219-NFPA 101-2024 [ Section No. A.7.2.1.2.2 ]

**A.7.2.1.2.2**

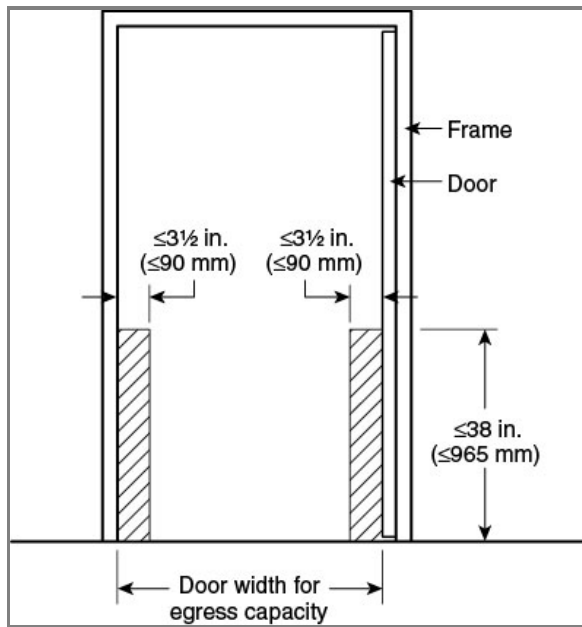
Figure A.7.2.1.2.2(a) and Figure A.7.2.1.2.2(b) illustrate the method of measuring egress capacity width for purposes of calculating door egress capacity.

**Figure A.7.2.1.2.2(a) Door Width — Egress Capacity.**



**Figure A.7.2.1.2.2(b) Door Width — Egress Capacity with Permitted Obstructions. Egress Capacity Width Measurement with Boundary/Edge Effect Clearances**

<<REPLACE FIGURE A.7.2.1.2.2(b) with ONE OF THE ATTACHED FIGURES>>



**Additional Proposed Changes**

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_101_2027_Proposals_ECW_Figures_Boundary_Effect.docx	Proposed new figure for A.7.2.1.2.2(b)	

**Statement of Problem and Substantiation for Public Input**

Existing Figure A.7.2.1.2.2(b) seems to allow for unspecified physical obstructions when measuring egress capacity widths of door openings, which creates confusion in the field. Unlike the 4-inch projection for fire exit hardware and panic hardware devices, these 3-1/2-inch encroachments at both sides of the door opening are not for tangible door hardware or other materials. Instead, they apply the effective-width concept of building elements such as corridors, ramps, stairs, and doors referred to as the boundary/edge effect described in NFPA 101. (See paragraphs 7.3.2.2, 7.3.3.2, and A.7.3.3.2.)



The first paragraph in A.7.3.3.2 includes the following statement: "In essence, the effective width phenomenon recognizes that there is an edge or boundary effect at the sides of a circulation path..." The unspecified projections shown in Figure A.7.2.1.2.2(b) illustrate the boundary/edge effect as it pertains to door openings.

Essentially, the boundary/edge effect accounts for the human body's shape; we're narrower at our feet and wider at our shoulders. Consider how we walk through doorways; we tend to walk through the center area of the openings. Our feet create a natural clearance between the side jambs of the door frames as we step through the openings; otherwise, we would kick the frames with our feet and our shoulders would rub against them. The boundary/edge effect accounts for this naturally occurring clearance. The boundary/edge effect applies only to where the measurement for the egress-capacity calculation of swinging doors is taken; it does not reduce the clear width dimension requirement for swinging doors. The Code requires swinging egress doors to provide the minimum clear width dimensions for the occupancies they serve. Projections into the required clear width dimensions below thirty-four (34) inches above the finished floor (AFF) are not permitted.

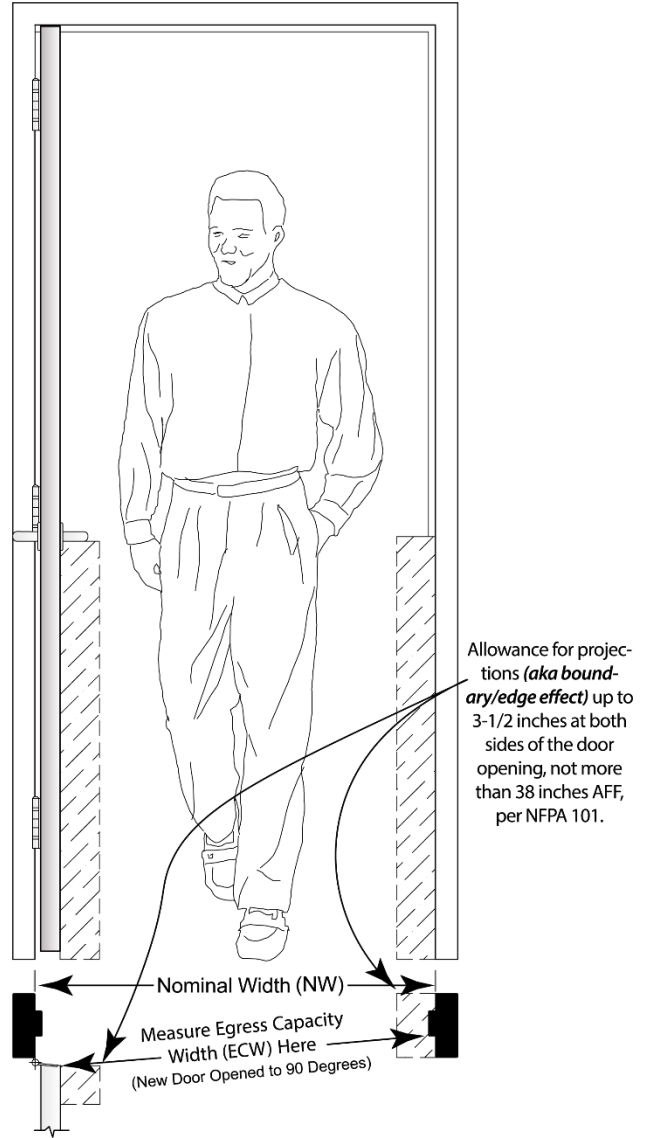
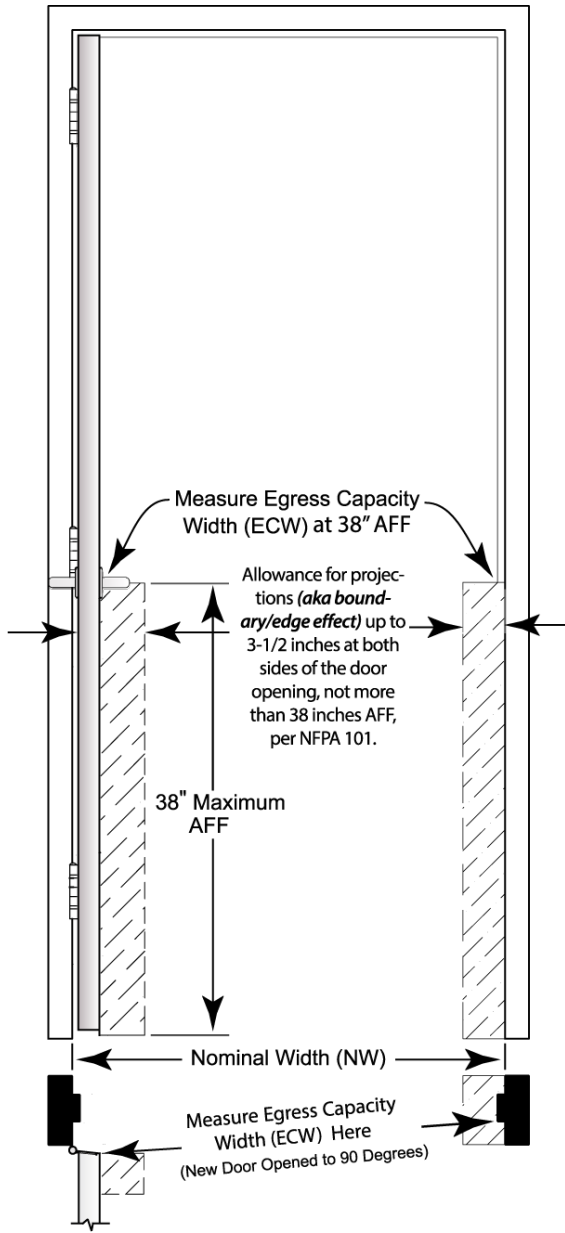
Adopting one of the submitted figures (or a version thereof) to replace the existing figure clarifies the Code's intent.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 218-NFPA 101-2024 [Section No. 7.2.1.2.2.1]</a>	

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## Public Input No. 272-NFPA 101-2024 [ Section No. A.7.2.1.5.3.4 ]

### A.7.2.1.5.3.4

Examples of devices that, when used with a latch, can be arranged to require not more than one additional releasing operation- motion \_ include dead bolts, security chains, swing door locks, and privacy door guards.

A door with a thumb-turn operated dead bolt complying with 7.2.1.5.3.3 in addition to a lever operated latchset would be permitted by 7.2.1.5.3.7 as the dead bolt could be retracted with the first motion of rotating the thumb turn- (~~one operation~~), and then the latch bolt would be retracted by the second motion of rotating the lever handle- (~~other operation~~).

A door with two lever operated latchsets would not be permitted because the first operation- motion \_ of rotating the lever to retract one of the latch bolts would also require that lever to be manually maintained, or held, in the turned position while the second operation- motion \_ of the rotating the other lever to retract the second latch bolt is performed.

Swing bar door locks and privacy door guards are commonly used in hotel guest rooms and many other applications permitted by this section.

Colleges and universities are increasingly constructing \_ dormitories with suite-style living arrangements with a shared space and individual bedrooms \_ NFPA \_ 101 \_ considers suite-style \_ dormitories as \_ apartment buildings, per \_ 28.1.1.4: Any dormitory divided into suites of rooms, with one or more bedrooms opening into a living room or study that has a door opening into a common corridor serving a number of suites, shall be classified as an apartment building.

## Statement of Problem and Substantiation for Public Input

Revisions to the Annex supporting proposed revisions to the mandatory text.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 271-NFPA 101-2024 [Section No. 7.2.1.5.3.4]	

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## Public Input No. 275-NFPA 101-2024 [ New Section after A.7.2.1.5.10 ]

### A.7.2.1.5.11

NFPA 101 requires many doors to be self-latching or positive latching. Most of these doors are required to comply with NFPA 80, but not all.

In health care facilities, electric latch retraction hardware is often used on fire door assemblies to allow the doors to function as push/pull operation under normal conditions and latch automatically if there is a fire. When a door in a hospital or nursing home is considered a "corridor door" as addressed in the health care chapters, the door is not required to be fire rated but is required to have positive-latching hardware. A common example of this application is a pair of non-fire-rated doors serving as the entrance to a suite. These doors are typically self-closing or automatic-closing (although this is not technically required by NFPA 101 for corridor doors), and the code requires the doors to have positive-latching hardware.

NFPA 80, in Section 6.4.4.4.3, permits latching arrangements on fire doors that do not latch in the normal mode, if the door automatically becomes positively latched during a fire by means of a fail safe device activated by an automatic fire detector.

This section explicitly recognizes in NFPA 101 this option in NFPA 80, and permits this hardware to be used on non-fire-rated doors that are required to have positive-latching hardware.

### Statement of Problem and Substantiation for Public Input

Suggesting an Annex note for the section in the revisions in Public Input No. 274.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 274-NFPA 101-2024 [New Section after 7.2.1.5.10]</u>	

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## Public Input No. 287-NFPA 101-2024 [ Section No. A.7.2.1.5.10 ]

### A.7.2.1.5.10

Examples of devices prohibited by this requirement include locks, padlocks, hasps, bars, chains, or combinations thereof. The electrical locking system in 7.2.1.6.1 is intended to delay free egress. The locking system in 7.2.1.6.4 is intended to control exit access from an elevator lobby through tenant spaces except during an emergency situation. The locking systems identified in health care occupancies and board and care occupancies are permitted because of the clinical needs or special needs of the occupants.

### Statement of Problem and Substantiation for Public Input

The revisions in 7.2.1.5.10, and this related Annex revisions, are intended to clarify the requirements in this section. Section 7.2.1.6 has four special locking arrangements. Only two of those locking arrangements permit preventing the free use of a door leaf for egress: 7.2.1.6.1 delayed egress, and 7.2.1.6.4 elevator lobby exit access door locking. In lockups in accordance with either of the two identified sections are permitted to prevent the free use of a door leaf for egress. The locking system in 18.2.2.2.5, and the locking systems in the subsequent identified sections, control egress and are variants of controlled egress locking systems.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 286-NFPA 101-2024 [Sections 7.2.1.5.9, 7.2.1.5.10]</a>	
<a href="#">Public Input No. 286-NFPA 101-2024 [Sections 7.2.1.5.9, 7.2.1.5.10]</a>	

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## Public Input No. 76-NFPA 101-2024 [ New Section after A.7.2.1.6.2 ]

A.7.2.1.6.2.1 The sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) used to unlock the door upon occupant approach is typically mounted above the locked door in the direction of egress. The purpose of the contactless sensor referenced in 7.2.1.6.2.1(3) is to provide another option to the “PUSH TO EXIT” button that doesn’t require physical contact and locate it within 60 inches of the door to unlock the doors in the event the sensor referenced in 7.2.1.6.1.2(1) and 7.2.1.6.2.1(2) fails.

A.7.2.1.6.2.1(3)(d). A wave-to-open sensor is considered a contactless sensor.

A.7.2.1.6.2.1(3)(f). The contactless sensor needs to be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) in order to ensure both sensors can’t fail simultaneously.

### Statement of Problem and Substantiation for Public Input

To avoid confusion, annex material is added to discuss the differences between the existing (overhead motion) sensors used to unlock doors upon occupant approach and the proposed contactless sensors to unlock doors in the event the (overhead motion) sensors fail. Text is also included that clarifies that contactless sensors can currently be used, but only as a supplement to “push to exit” devices.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 75-NFPA 101-2024 [Section No. 7.2.1.6.2.1]</a>	annex material to PI 75
<a href="#">Public Input No. 77-NFPA 101-2024 [New Section after A.7.2.1.6.2]</a>	

### Submitter Information Verification

**Submitter Full Name:** Joshua Elvove  
**Organization:** Self  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Mon Apr 22 21:29:58 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 77-NFPA 101-2024 [ New Section after A.7.2.1.6.2 ]

**A.7.2.1.6.2.1(3). Nothing in the 7.2.1.6.2.1 precludes the use of contactless sensors so long as they are used in concert with the “push to exit” device referenced in by 7.2.1.6.2.1(3)(c).**

### Statement of Problem and Substantiation for Public Input

Though PI 75 and 76 are preferred, this is a placeholder in the event that PI 75 and 76 are rejected. The purpose of this annex note is to permit contactless sensors to unlock doors so long as they are installed in addition to the manual "push to exit" button that's already required.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 75-NFPA 101-2024 [Section No. 7.2.1.6.2.1]</u>	substitute in the event PI 75 and 76 fail
<u>Public Input No. 76-NFPA 101-2024 [New Section after A.7.2.1.6.2]</u>	substitute in the event PI 75 and 76 fail

### Submitter Information Verification

**Submitter Full Name:** Joshua Elvove  
**Organization:** Self  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submission Date:** Mon Apr 22 21:34:17 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 6-NFPA 101-2024 [ Section No. A.7.2.1.6.2 ]

### A.7.2.1.6.2

Doors with a sensor-release electrical locking system are equipped with an electrical locking system that is released by a sensor activated by the normal motions of an occupant egressing through that door. The activation of the sensor to cause the electrical lock to release is usually by passive action by the occupant, such as walking to the door. A manual release device, such as a push-button switch that directly interrupts the power to the electrical lock, is required by item (3) as a backup. With most sensor-release electrical locking systems, the occupant might not notice the door is electrically locked in the direction of egress. Doors equipped with these locking systems provide unobstructed, immediate egress.

These provisions were previously titled "Access-Controlled Egress Door Assemblies" as these doors typically have some type of access control system, such as a key pad, card scanner, or fob scanner controlling access (ingress) into the building or space. Because access control systems can be installed on essentially any door, the previous title resulted in differing interpretations, applications, and enforcement of permitted locking systems, and they were retitled in the 2018 edition of the *Code*.

.1 The sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) used to unlock the door upon occupant approach is typically mounted above the locked door in the direction of egress. The purpose of the contactless sensor referenced in 7.2.1.6.2.1(3) is to provide another manual option to the "PUSH TO EXIT" button that doesn't require physical contact and locate it within 60 inches of the door to unlock the doors in the event the sensor referenced in 7.2.1.6.1.2(1) and 7.2.1.6.2.1(2) fails.

A.7.2.1.6.2.1(3)(d). A wave-to-open sensor is an example of a contactless sensor.

A.7.2.1.6.2.1(3)(f). The contactless sensor needs to be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) in order to ensure both sensors can't fail simultaneously.

### Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
PC71-101_SAF-MEA.pdf	101_PC#71	

### Statement of Problem and Substantiation for Public Input

NOTE: This Public Input appeared as "Reject but Hold" in Public Comment No. 71 of the (A2023) Second Draft Report for NFPA 101 and per the Regs. at 4.4.8.3.1 and needs to be reconsidered by the TC for the next edition of the document.

Add the text from the public comment to existing annex text as appropriate (i.e., do not delete any existing text, if that's what Terra View shows)

The use of contactless sensors to open doors is becoming more prevalent due to Covid and other concerns about the spread of infection, especially in health care settings. Contactless sensors (e.g., "wave to open" devices) can perform similarly to manual "push to exit" devices and should therefore be permitted as a substitute for "push to exit" devices, but only if they are listed to UL 294 and only if they are configured to be independent of the (overhead motion) sensors used to unlock the door upon occupant approach such that a single failure can't result in both types of sensors failing simultaneously.

To avoid confusion, annex material is added to discuss the differences between the existing (overhead motion) sensors used to unlock doors upon occupant approach and the proposed contactless sensors to unlock doors in the event the (overhead motion) sensors fail.

### Submitter Information Verification

**Submitter Full Name:**

**Organization:** Holds

**Street Address:**

**City:**

**State:**

**Zip:**

**Submission Date:** Mon Jan 15 14:58:06 EST 2024

**Committee:** SAF-MEA





## Public Comment No. 71-NFPA 101-2022 [ Section No. A.7.2.1.6.2 ]

### A.7.2.1.6.2

—

~~Doors with a sensor-release electrical locking system are equipped with an electrical locking system that is released by a sensor activated by the normal motions of an occupant egressing through that door. The activation of the sensor to cause the electrical lock to release is usually by passive action by the occupant, such as walking to the door. A manual release device, such as a push-button switch that directly interrupts the power to the electrical lock, is required by item (3) as a backup. With most sensor-release electrical locking systems, the occupant might not notice the door is electrically locked in the direction of egress. Doors equipped with these locking systems provide unobstructed, immediate egress.~~

~~These provisions were previously titled “Access-Controlled Egress Door Assemblies” as these doors typically have some type of access control system, such as a key pad, card scanner, or fob scanner controlling access (ingress) into the building or space. Because access control systems can be installed on essentially any door, the previous title resulted in differing interpretations, applications, and enforcement of permitted locking systems, and they were retitled in the 2018 edition of the Code~~

.1 The sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) used to unlock the door upon occupant approach is typically mounted above the locked door in the direction of egress. The purpose of the contactless sensor referenced in 7.2.1.6.2.1(3) is to provide another manual option to the “PUSH TO EXIT” button that doesn’t require physical contact and locate it within 60 inches of the door to unlock the doors in the event the sensor referenced in 7.2.1.6.1.2(1) and 7.2.1.6.2.1(2) fails.

A.7.2.1.6.2.1(3)(d). A wave-to-open sensor is an example of a contactless sensor.

A.7.2.1.6.2.1(3)(f). The contactless sensor needs to be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) in order to ensure both sensors can’t fail simultaneously .

### Statement of Problem and Substantiation for Public Comment

Add the text from the public comment to existing annex text as appropriate (i.e., do not delete any existing text, if that’s what Terra View shows)

The use of contactless sensors to open doors is becoming more prevalent due to Covid and other concerns about the spread of infection, especially in health care settings. Contactless sensors (e.g., “wave to open” devices) can perform similarly to manual “push to exit” devices and should therefore be permitted as a substitute for “push to exit” devices, but only if they are listed to UL 294 and only if they are configured to be independent of the (overhead motion) sensors used to unlock the door upon occupant approach such that a single failure can’t result in both types of sensors failing simultaneously.

To avoid confusion, annex material is added to discuss the differences between the existing (overhead motion) sensors used to unlock doors upon occupant approach and the proposed contactless sensors to unlock doors in the event the (overhead motion) sensors fail.

#### Related Item

- New text for 7.2.1.6.2.

### Submitter Information Verification

**Submitter Full Name:** Joshua Elvove

**Organization:** Self

**Street Address:**

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**State:**

**Zip:**

**Submittal Date:** Fri Apr 15 00:49:10 EDT 2022

**Committee:** SAF-MEA

### Committee Statement

**Committee Action:** Rejected but held

**Resolution:** The proposed revision is new material. The related PC-70 on Ch. 7 was also held.



## Public Input No. 312-NFPA 101-2024 [ New Section after A.7.2.1.6.2.1(8) ]

### **A.7.2.1.6.3**

These locking systems cause the electrical lock to be released by the normal operation of the door-mounted unlocking / unlatching hardware. If the door is equipped with a mechanical lock in addition to the electrical lock, the operation of the releasing door hardware would also mechanically unlock the door assembly in the direction of egress.

One example of this type of locking system is panic hardware with an internal switch connected to an electromagnetic lock positioned at the top of the door opening. The normal operation of unlocking / unlatching the door mechanically with the panic hardware also activates the internal switch directly interrupting the power \_supplied \_to the electromagnetic door lock, allowing the door to be opened for unobstructed and immediate egress.

### **Statement of Problem and Substantiation for Public Input**

Suggestion of an Annex note for door hardware release electrical locking systems.

### **Submitter Information Verification**

**Submitter Full Name:** John Woestman  
**Organization:** Kellen Company  
**Affiliation:** Builders Hardware Manufacturers Association  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Mon Jun 03 22:02:30 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 299-NFPA 101-2024 [ New Section after A.7.2.1.6.4.1(1) ]

### **A 7.2.1.6.5**

Interlocked-door vestibules are as the name implies: a vestibule with interlocked-doors. The egress door into the vestibule is interlocked with the door leading out of the vestibule such that only one of the doors can be open at a given time. .

Interlocked -door vestibules may be utilized for environmental contamination control (health care; manufacturing clean rooms), controlled substance dispensing (prescription drugs and cannabis), occupant protection (health care), security reasons (money handling rooms), and other uses and applications.

An occupant egressing through an interlocked-door vestibule would not be delayed at the second door in series if the first door in series is in a closed position. Conversely, if the first door is not closed, the second door would not be able to be opened. The requirements for interlock override switches, for "fail-safe" interlocks in the event of power failure, and to deactivate the interlock upon activation of the sprinkler system or smoke detection system are all intended to ensure unencumbered egress through the interlocked-door vestibule if and when needed.

### **Statement of Problem and Substantiation for Public Input**

Suggesting an Annex note to complement the proposal for interlocked-door vestibules.

### **Related Public Inputs for This Document**

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 297-NFPA 101-2024 [New Section after 3.3.165]</u>	
<u>Public Input No. 298-NFPA 101-2024 [New Section after 7.2.1.6.4]</u>	
<u>Public Input No. 298-NFPA 101-2024 [New Section after 7.2.1.6.4]</u>	

### **Submitter Information Verification**

**Submitter Full Name:** John Woestman  
**Organization:** Kellen Company  
**Affiliation:** Builders Hardware Manufacturers Association  
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**State:**  
**Zip:**  
**Submission Date:** Mon Jun 03 21:38:00 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 96-NFPA 101-2024 [ New Section after A.7.7.1 ]

### A.7.7.2

This section is intended to allow egress from several types of exits through the interior of the building, provided the requirements of this section are met. A common example is egress from exit stair enclosures but this section could also be used at an exit from the building through a vestibule to the exterior. In such as case, the door from the building into the vestibule would be considered the exit. This means, for example, the manual fire alarm pull station (if required) could be located at the door into the vestibule and, in a health care occupancy complying with 18.3.4.5.3, the vestibule would not be considered part of the corridor and would not require smoke detection. Note that this section is not applicable to horizontal exits, as the 2-hour horizontal exit fire barrier allows the area beyond the exit to be treated as a separate building.

### Statement of Problem and Substantiation for Public Input

Since this section refers to exits, not exit enclosures, there has been some uncertainty as to whether it could be used at vestibules. Where manual fire alarm pull stations are required, it makes sense for the pull station to be at the door into the vestibule, as this allows for faster activation of the fire alarm system, and smoke detectors in vestibules can be subject to false alarms due to dust from outside. This annex note clarifies that this provision is not limited to exit enclosures while also clarifying that it does not apply to horizontal exits. Horizontal exits have other specific requirements and there is no need to make additional requirements on the way from the horizontal exit to the building exterior.

### Submitter Information Verification

**Submitter Full Name:** John Rickard  
**Organization:** P3 Consulting  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Mon May 13 10:35:16 EDT 2024  
**Committee:** SAF-MEA



## Public Input No. 48-NFPA 101-2024 [ Section No. 3.3.66 ]

**3.3.66** Door.

**See** [3.3.26.1](#).

**3.3.66.1** Elevator Lobby Door.

A door between an elevator lobby and another building space other than the elevator shaft. (SAF-MEA)

**3.3.66.2** Fire Door.

The door component of a fire door assembly. (SAF-FIR)

### Statement of Problem and Substantiation for Public Input

The term "door" is not defined in NFPA 101. The majority of the time the term is used in NFPA 101, it is likely being used in reference to the leaf of a swinging door assembly; however, that is not always the case. In the context of a vertical rolling door protecting a window opening in a smoke partition or smoke barrier, the rolling door "curtain" is what, if not a door that is part of a door assembly? To say it another way, a service counter "door" or "shutter" or "curtain" that protects a transaction counter opening in a smoke partition or smoke barrier is what, if not a door? For example, 8.4.3.5 requires "Doors shall be self-closing or automatic-closing in accordance with 7.2.1.8." If the intent of 8.4.3.5 is that a service counter door protecting a transaction window in a smoke partition be self- or automatic-closing in accordance with 7.2.1.8, the term "door" as used in 8.4.3.5 should be traceable to the definition of "door assembly". I would also strongly recommend adding commentary language/enhanced content to 3.3.26.1 to expand upon the existing content to include a vertical rolling door. Note that while a "door" in a smoke partition is not required to be fire-rated, the strongest correlation for describing a "door" protecting a service counter transaction window in a smoke partition is a service counter fire door, typically of the rolling steel fire door type, as described in NFPA 80, 2022 edition.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 47-NFPA 101-2024 [Section No. 8.4.3.6]</a>	"Shutters" as used in 8.4.3.6 is not a defined term; however, "door" and "doors" as used in 8.4.3.1 through 8.4.3.5 and even 8.5.4.1 through 8.5.4.4 is not inclusive of or traceable to all types of doors.

### Submitter Information Verification

**Submitter Full Name:** Eric Reed  
**Organization:** Poole Fire Protection, Inc.  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submission Date:** Fri Mar 22 17:29:01 EDT 2024  
**Committee:** SAF-AAC

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By checking this box I affirm that I am Eric Reed, and I agree to be legally bound by the above Copyright Assignment and the terms and conditions contained therein. I understand and intend that, by checking this box, I am creating an electronic signature that will, upon my submission of this form, have the same legal force and effect as a handwritten signature

**From:** [Harrington, Greg](#)  
**To:** [Harrington, Greg](#)  
**Subject:** FW: 101HB Ch. 7 Commentary Discrepancy  
**Date:** Friday, June 7, 2024 3:45:04 PM

---



I apologize for the delayed reply. My response is based on NFPA 101, *Life Safety Code*, 2018 edition.

It appears that you have identified a possible discrepancy between the *Code* language and the *Handbook* commentary. The language in 7.2.4.2.4 has existed since the 1967 edition (and perhaps earlier, although I am unable to verify). It requires accumulation space on both sides of a horizontal exit barrier to be sized to accommodate the occupant load of both compartments. Prior to the 2009 edition of the *Handbook*, the related commentary read, "Although each compartment must contain sufficient available floor area [at least 3 ft<sup>2</sup> (0.28 m<sup>2</sup>) per person for the total occupant load of both compartments], occupants will not remain in the safe compartment indefinitely..." In the 2009 edition of the *Handbook*, the commentary was revised to read as it appears in the 2018 and subsequent editions.

I am unable to locate documentation to support the commentary revision in the 2009 edition, so I can only surmise that it was the commentary author's opinion that sufficient accumulation space would be provided if each compartment were sized to accommodate the occupant load of the compartment plus the number of occupants for which the horizontal exit is credited. The authority having jurisdiction might judge this to be a reasonable interpretation based on the current *Handbook* commentary and apply 7.2.4.2.4 accordingly via the provision for equivalency in Section 1.4. Such determination, however, must be made by the authority having jurisdiction.

**Important Notice:** Any opinion expressed in this correspondence is the personal opinion of the author and does not necessarily represent the official position of the NFPA or its Technical Committees. In addition, this correspondence is neither intended, nor should it be relied upon, to provide professional consultation or services.

*Gregory Harrington, PE*  
*Principal Engineer*



## NFPA

If you have a follow-up question directly related to this inquiry, please reply to this email. If you have another question on either a separate topic or different document please return to the document information pages and submit your new question by clicking on the "Technical Questions" tab.

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Create Date: 4/20/2023

Document Number: 101

Edition: 2018

Section: Section 7.2.4/7.2.4.2.4

Subject: Horizontal Exits

Question for NFPA: We recently encountered different interpretations regarding the accumulation area or waiting space calculation as it relates to the design of horizontal exits. Some designers and authorities having jurisdiction are interpreting the provision of section 7.2.4.2.4 to account for the entire population/occupant load in the adjacent compartment to be used for the one person per 3 sq. ft. accumulation space. As noted in the author commentary in the Life Safety Code Handbook, it indicates that the number of occupants to be considered is based on the occupants credited with utilizing or going through the doors in the horizontal exits. It is our position that the allocated space in the adjacent compartment, that is the compartment that occupants are moving from, is simply based on the number of occupants that the horizontal exit is being designed for, rather than the population of the entire adjacent compartment.

Provided all other conditions for horizontal exits are satisfied, our questions are as follows.

1. Is it the intent of section 7.2.4.2.4 to use the entire population of the adjacent compartment when determining the area of waiting/accumulation space? Or
2. Is it the intent of section 7.2.4.2.4 to use only the proportion of the population of the adjacent compartment expected to use the horizontal exit when determining the waiting/accumulation space?

**From:** [Harrington, Greg](#)  
**To:** [Harrington, Greg](#)  
**Subject:** FW: NFPA 101 Security Turnstiles  
**Date:** Friday, June 7, 2024 2:34:58 PM

---

**Sent:** Monday, August 29, 2022 8:47 AM  
**To:** Sisco, Jennifer <[JSisco@nfpa.org](mailto:JSisco@nfpa.org)>  
**Cc:** Harrington, Greg <[gharrington@NFPA.org](mailto:gharrington@NFPA.org)>  
**Subject:** Re: NFPA 101 Security Turnstiles

My original intent and I believe the intent of the TC was to allow "security access" turnstiles anywhere that turnstiles are permitted (i.e. anywhere revolving doors are permitted). I hope this helps.

On Fri, Aug 26, 2022 at 1:04 PM Sisco, Jennifer <[JSisco@nfpa.org](mailto:JSisco@nfpa.org)> wrote:

I am reviewing NFPA 101 and came across the provision for Security Turnstiles in 7.2.1.11.1.3. The charging language indicates "where permitted in Chapters 11 through 43" but there are no provisions in any chapters outside of Chapter 7. I saw that you were the original PI submitter to the 2015 edition and I was wondering if you could give me any insight what you were trying to achieve with these requirements and the discussion at the committee level. Was the intent to allow these turnstiles anywhere that turnstiles are permitted (i.e. anywhere revolving doors are permitted) or was it intended only for a specific occupancy?

Regards,

**Jennifer Sisco, PE**  
Senior Fire Protection Engineer | **NFPA**



## Public Input No. 108-NFPA 5000-2024 [ Section No. 11.8.1.1 ]

### 11.8.1.1\*

Illumination of means of egress shall be provided in accordance with Section 11.8 for every building and structure where required in Chapters 15 through 31 and 33 through 34. For the purposes of this requirement, exit access shall include only designated stairs, aisles, aisle accessways per section 16.2.5.7.10, corridors, ramps, escalators, and passageways leading to an exit. For the purposes of this requirement, exit discharge shall include only designated stairs, aisles, corridors, ramps, escalators, walkways, and passageways leading to a public way.

### Statement of Problem and Substantiation for Public Input

This is for coordination with Public Input No. 107-NFPA 5000-2024 to require illumination in aisle accessways with steps the same as aisle.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 107-NFPA 5000-2024 [New Section after 16.2.5.7]</u>	reference re some aisle accessways

### Submitter Information Verification

**Submitter Full Name:** William Conner  
**Organization:** Bill Conner Associates LLC  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Thu May 30 14:24:04 EDT 2024  
**Committee:** BLD-MEA



## Public Input No. 107-NFPA 5000-2024 [ New Section after 16.2.5.7 ]

### 16.2.5.7.10 Steps in Aisle Accessways

#### 16.2.5.7.10.1

Steps in aisle accessways shall be marked as for aisles in Section 16.2.5.8.11

#### 16.2.5.7.10.1

Steps in aisle accessways shall be illuminated as for aisles in Section 11.8

## Statement of Problem and Substantiation for Public Input

Steps in aisle access ways is a more recent development. These steps, whether for a transition from one level to another within the row or to separate the aisle accessway from the higher surface that chairs are mounted on for sightlines, are usually a single step with the known hazard, unexpected as explained in NFPA 101 annex note A.7.1.7.2. Similar to marking and because these are usually between rows of fixed seating which blocks illumination, these should be illuminated as well.

## Submitter Information Verification

**Submitter Full Name:** William Conner

**Organization:** Bill Conner Associates LLC

**Affiliation:** American Society of Theatre Consultants

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Thu May 30 14:02:17 EDT 2024

**Committee:** BLD-AXM

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I, William Conner, hereby irrevocably grant and assign to the National Fire Protection Association (NFPA) all and full rights in copyright in this Public Input (including both the Proposed Change and the Statement of Problem and Substantiation). I understand and intend that I acquire no rights, including rights as a joint author, in any publication of the NFPA in which this Public Input in this or another similar or derivative form is used. I hereby warrant that I am the author of this Public Input and that I have full power and authority to enter into this copyright assignment.

By checking this box I affirm that I am William Conner, and I agree to be legally bound by the above Copyright Assignment and the terms and conditions contained therein. I understand and intend that, by checking this box, I am creating an electronic signature that will, upon my submission of this form, have the same legal force and effect as a handwritten signature



## Public Input No. 116-NFPA 5000-2024 [ Section No. 11.14.1.2 ]

### 11.14.1.2

The provisions of Section 11.14 shall not apply where the limited or supervised use of elevators for evacuation is part of a formal or informal evacuation strategy, including the relocation or evacuation of patients in health care occupancies and the relocation or evacuation of occupants ~~with disabilities~~ that require a high level of supervision in other occupancies.

### Statement of Problem and Substantiation for Public Input

Occupant Evacuation Elevators are designed to be used by occupants with disabilities such as people who use wheelchairs who are unable to use the stairs to exit a building during an emergency. The current code is a contradiction to the intent of Occupant Evacuation Operation as it prohibits those who need it most from using it. The proposed revision would only limit use if someone required a high level of supervision (such as a nursing home, memory care facility, penal institution, etc.).

### Submitter Information Verification

**Submitter Full Name:** Kevin Brinkman

**Organization:** National Elevator Industry, In

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Fri May 31 17:15:52 EDT 2024

**Committee:** BLD-MEA



## Public Input No. 117-NFPA 5000-2024 [ Section No. 11.14.8.3 ]

### 11.14.8.3\*

Control signaling wiring and cables that do not serve Phase II emergency in-car service or Occupant Evacuation Operation shall not be required to be protected.

### Statement of Problem and Substantiation for Public Input

Wiring for Occupant Evacuation Elevators are required to be protected to allow the elevators to run on Occupant Evacuation Operation during a fire emergency

### Submitter Information Verification

**Submitter Full Name:** Kevin Brinkman

**Organization:** National Elevator Industry, In

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Fri May 31 17:29:47 EDT 2024

**Committee:** BLD-MEA



## Public Input No. 56-NFPA 5000-2024 [ New Section after A.11.7.1 ]

### A.11.7.2

This section is intended to allow egress from several types of exits through the interior of the building, provided the requirements of this section are met. A common example is egress from exit stair enclosures but this section could also be used at an exit from the building through a vestibule to the exterior. In such as case, the door from the building into the vestibule would be considered the exit. This means, for example, the manual fire alarm pull station (if required) could be located at the door into the vestibule and, in a health care occupancy complying with 19.3.4.5.3, the vestibule would not be considered part of the corridor and would not require smoke detection. Note that this section is not applicable to horizontal exits, as the 2-hour horizontal exit fire barrier allows the area beyond the exit to be treated as a separate building.

### Statement of Problem and Substantiation for Public Input

Since this section refers to exits, not exit enclosures, there has been some uncertainty as to whether it could be used at vestibules. Where manual fire alarm pull stations are required, it makes sense for the pull station to be at the door into the vestibule, as this allows for faster activation of the fire alarm system, and smoke detectors in vestibules can be subject to false alarms due to dust from outside. This annex note clarifies that this provision is not limited to exit enclosures while also clarifying that it does not apply to horizontal exits. Horizontal exits have other specific requirements and there is no need to make additional requirements on the way from the horizontal exit to the building exterior.

### Submitter Information Verification

**Submitter Full Name:** John Rickard

**Organization:** P3 Consulting

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Mon May 13 11:02:24 EDT 2024

**Committee:** BLD-MEA