Preparing for Fire Door Inspections

ALLEGION

Have You Heard This Before?

Have You Heard This Before?

Why can't I prop the door open with a wedge? I'll be nearby in case of a fire.

Have You Heard This Before?

I don’t want anyone using that exit door. Do something so people have to use a different door.

Have You Heard This Before?

There's room in the hall next to the fire exit. Let's store those big boxes there.

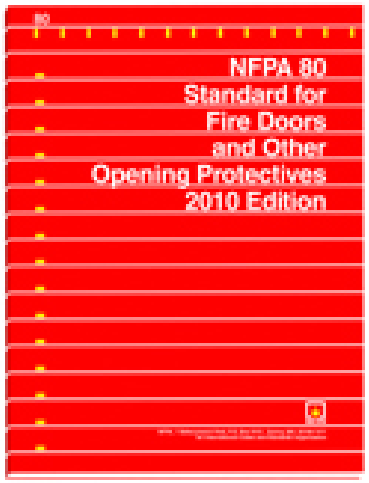
Have You Heard This Before?

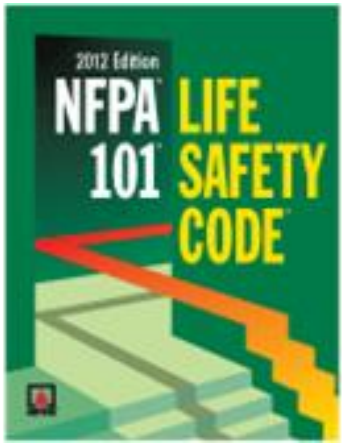
That fire door doesn't always close all the way. Fix it whenever you get time.

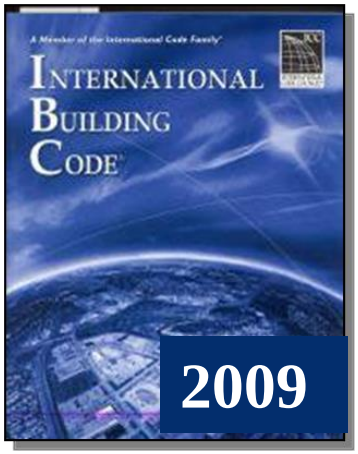
Have You Heard This Before?

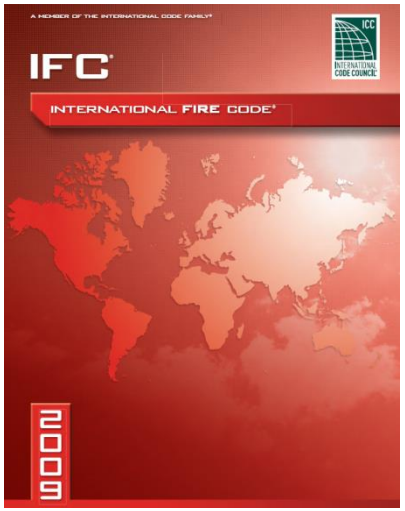
Have you inspected the fire doors?

Fire Door Requirements

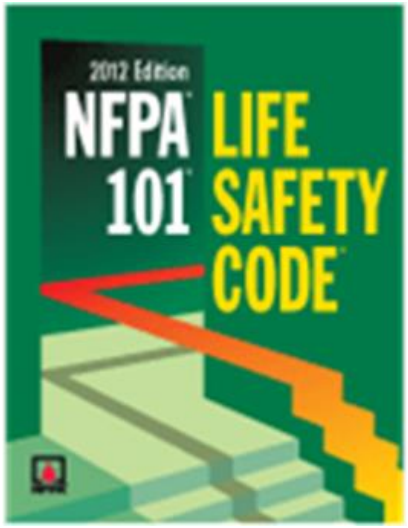








NFPA 101 2012 Edition



7.2.1.15.1 "Where required…, the following door assemblies shall be inspected and tested not less than annually…

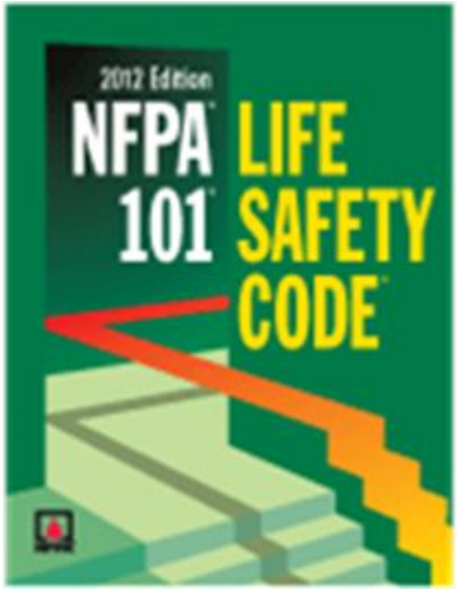
(1) Door leaves equipped with panic hardware or fire exit hardware

(2) Door assemblies in exit enclosures

(3) Electrically controlled egress doors

(4) Door assemblies with special locking arrangements

NFPA 101 2012 Edition
Door Inspection Requirements



Per 7.2.1.15.2 “Fire-rated door assemblies shall be inspected and tested in accordance with NFPA 80, …”

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Chapter 5 Care and Maintenance

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.1.1.2 “The requirements of this chapter shall apply to **new and existing** installations.”

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.1.5.1 “Repairs shall be made, and defects that could interfere with operation shall be **corrected without delay**.”

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.1.5.2.1

"In cases where a **field modification** to a fire door assembly is desired, the laboratory with which the product or component being modified is listed shall be contacted and a description of the modifications shall be presented to the laboratory."

Field Modifications

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.2.1 “Fire door assemblies shall be inspected and tested not less than **annually**, and a **written record** of the inspection shall be signed and kept for the inspection by the **AHJ.**”

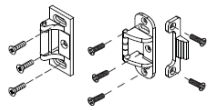
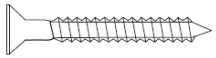
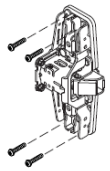
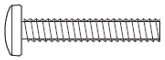
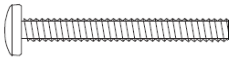
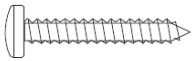
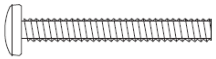
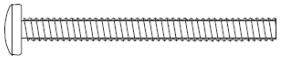
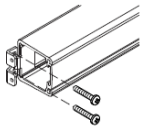
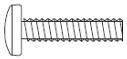
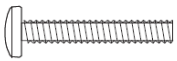
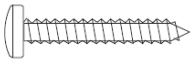
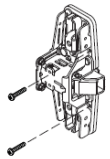
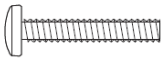
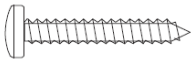
NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.2.3.1 “Functional testing of fire door and window assemblies shall be performed by **individuals with knowledge and understanding** of the operating components of the type of door subject to testing.”

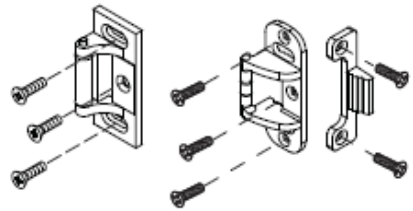
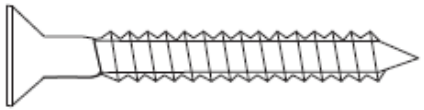
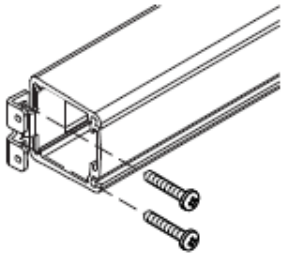
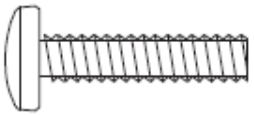
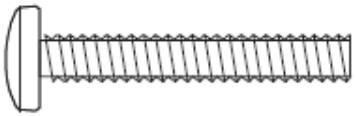
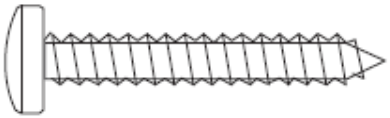
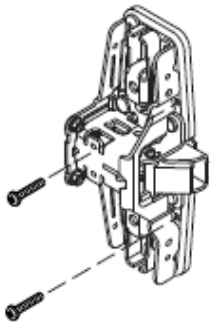
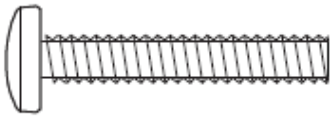
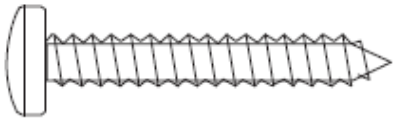
Knowledge and Understanding

- VonDuprin 98/99 Rim Exit Device

SCREW CHART

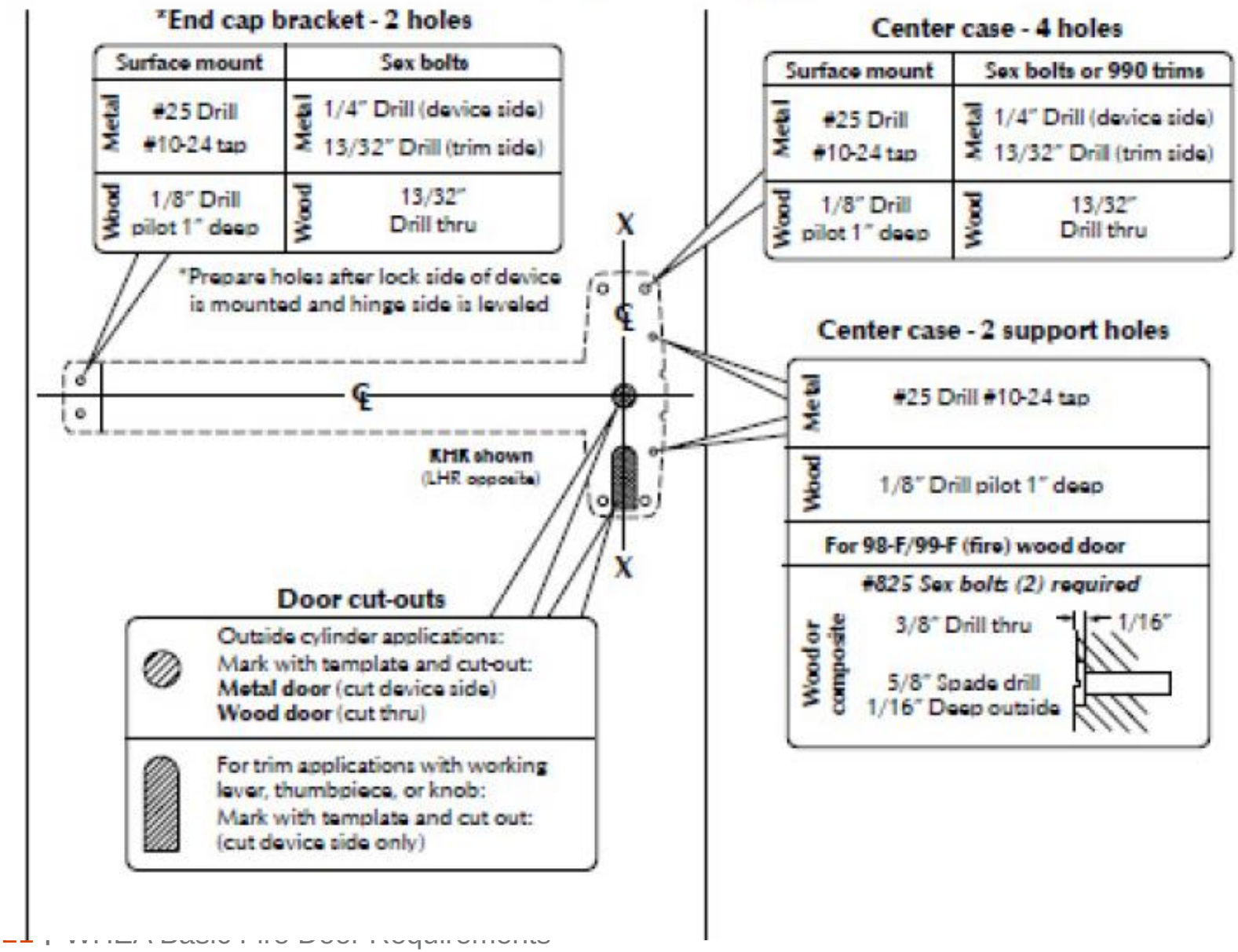
Subassembly	Screw		Application
A  299 Strike 499F Strike		#10-24 x ¾" (19 mm)	Metal frame
		#10 x 1½" (38 mm) Wood screw	Wood frame
B 		#10-24 x 1" (25 mm)	Surface mount or Sex bolts 1¾" (44 mm) door
		#10-24 x 1½" (38 mm)	Sex bolts, 2¼" (57 mm) door
		#10 x 1¼" (32 mm) Wood screw	Surface mount (wood)
	Packaged with 990 Trims:		
		#10-24 x 1⅜" (35 mm)	1¾" (44 mm) door, 990 Trim
		#10-24 x 1⅞" (48 mm)	2¼" (57 mm) door, 990 Trim
C 		#10-24 x ¾" (19 mm)	Surface mount or Sex bolts 1¾" (44 mm) door
		#10-24 x 1⅛" (29 mm)	Sex bolts, 2¼" (57 mm) door
		#10 x 1¼" (32 mm) Wood screw	Surface mount (wood)
D 		#10-16 x ⅜" (10 mm) Thread cutting	End cap
E 		#10-24 x 1" (25 mm)	Surface mount (metal)
		#10 x 1¼" (32 mm) Wood screw	Surface mount (wood)
F 		#8-18 x ⅜" (10 mm) Thread cutting	Center case cover

2

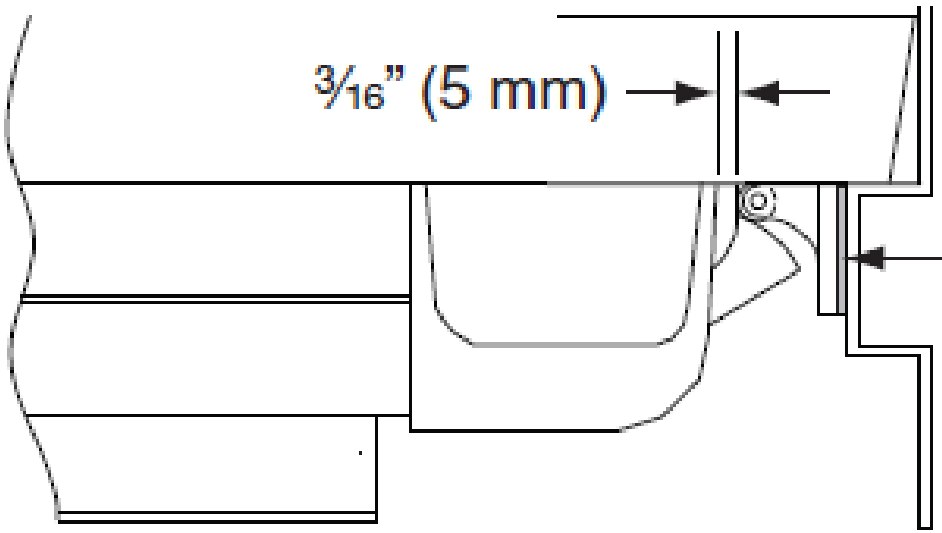
Subassembly	Screw	
A  299 Strike 499F Strike		#10-24 x ¾" (19 mm)
		#10 x 1½" (38 mm) Wood screw
C 		#10-24 x ¾" (19 mm)
		#10-24 x 1⅛" (29 mm)
		#10 x 1¼" (32 mm) Wood screw
E 		#10-24 x 1" (25 mm)
		#10 x 1¼" (32 mm) Wood screw

PREPARATION CHART

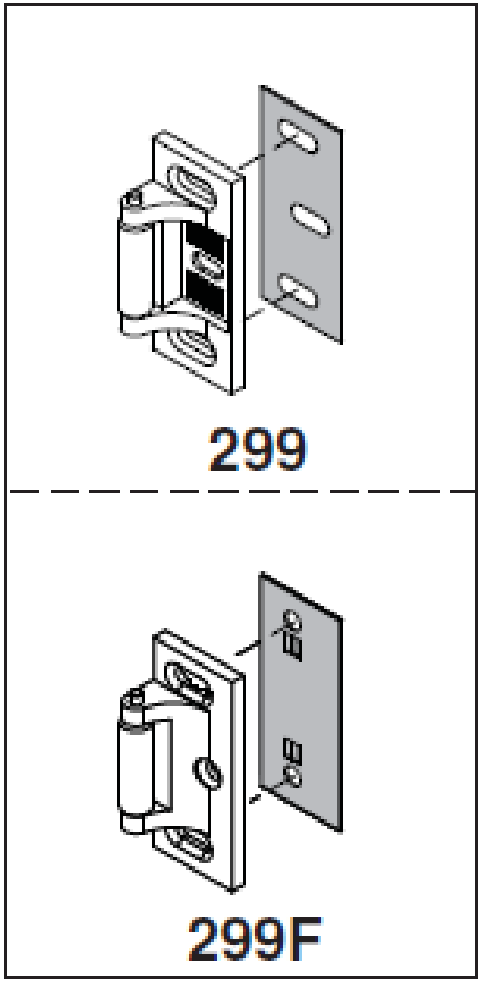
Go to Instructions on next page before using preparation chart



299/299F Strike



Shim as needed



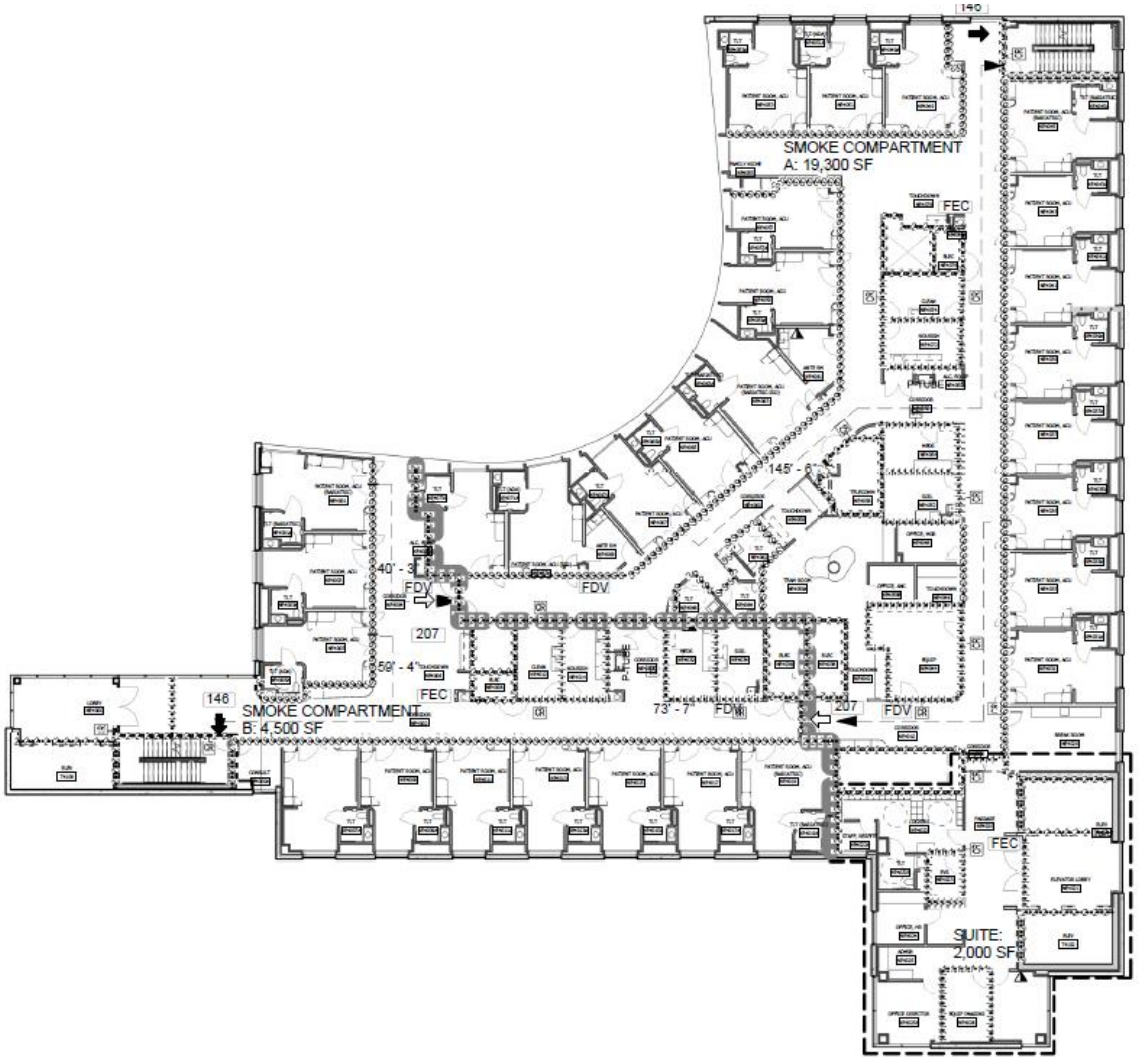
NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.2.3.2 “Before testing, a visual inspection shall be performed to identify any damaged or missing parts that can create a hazard during testing or affect operation or resetting.”

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Per 5.2.13.1 “Door openings and the surrounding areas shall be kept clear of anything that could obstruct or interfere with the **free operation of the door.**”

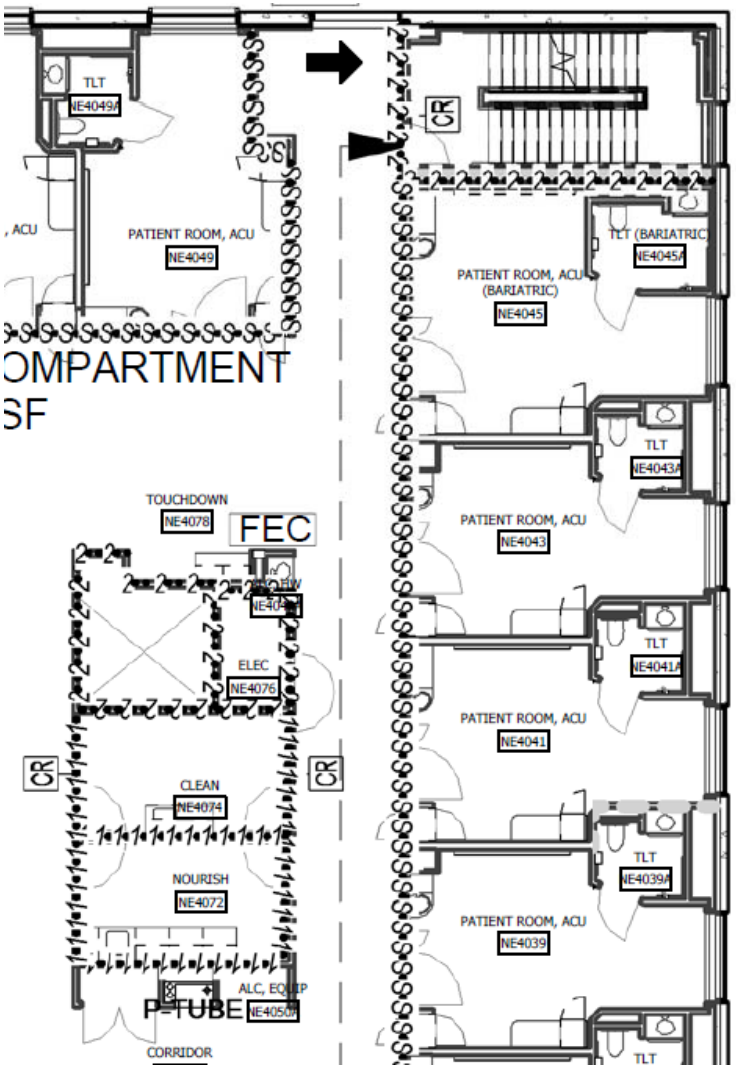
Which doors do I inspect?



Which doors do I inspect?

Where are my **fire doors**?

How can I tell?



INSPECTION CHECKLIST

Date _____

Pg. _____ of _____

BUILDING NAME _____

Door Number	Fire-Rating	Door Location	Compliant
			❑ YES ❑ NO
Remarks:			

FRAME

- ❑ Loose Frame
- ❑ Damaged Frame
- ❑ Rust-through on Frame
- ❑ Missing Label
- ❑ Frame is Out of Alignment
- ❑ Incorrect Glass in Sidelight or Transom-light
- ❑ Broken Glass in Sidelight or Transom-light
- ❑ Missing Glazing Bead at Light(s)
- ❑ Missing Glazing Bead Screw(s)
- ❑ Improper Field Modification (Explain Modification)
- ❑ Incorrect Hardware Preparation (Explain)
- ❑ Unused Fastener Hole(s) in Frame
- ❑ Other _____

DOOR

- ❑ Missing Door(s)
- ❑ Missing Label
- ❑ Damaged Door(s) (e.g., Dented, Bent)
- ❑ Rust-through on Door(s)
- ❑ Delamination of Door Skin or Face
- ❑ Incorrect Glass in Light(s)
- ❑ Broken Glass in Light(s)
- ❑ Light(s) is/are Too Large

DOOR (cont.)

- ❑ Loose Light Kits
- ❑ Missing Light Kit Screw(s)
- ❑ Improper Field Modification (Explain Modification)
- ❑ Incorrect Hardware Preparation (Explain)
- ❑ Unused Fastener Hole(s) in Door(s)
- ❑ Improper Plant-ons
- ❑ Replace Door
- ❑ Other _____

OPERATIONAL TEST

- ❑ Door Does NOT Swing Freely
- ❑ Door Does NOT Close Completely
- ❑ Door Does NOT Securely Latch
- ❑ Electric Door Release Does NOT Allow Door to Close
- ❑ Door Bottom Drags Against Floor Material
- ❑ Door Rubs Against Frame
- ❑ Edges of Paired Doors Overlap
- ❑ Coordinator Does NOT Function Properly
- ❑ Other _____

HINGES/PIVOTS

- ❑ Missing Hinge(s)
- ❑ Incorrect Hinge(s)
- ❑ Loose Hinge(s)
- ❑ Missing Screw(s)
- ❑ Replace Hinge(s)
- ❑ Other _____

DOOR BOLTS

- ❑ Missing Top Flush Bolt
- ❑ Missing Bottom Flush Bolt
- ❑ Missing Strike (Top Bolt)
- ❑ Missing Strike (Bottom Bolt)
- ❑ Bottom Bolt does NOT Engage Strike
- ❑ Missing Bolt Head (Top)
- ❑ Missing Bolt Head (Bottom)
- ❑ Missing Rub Plate(s)
- ❑ Incorrect Type of Flush Bolt(s)
- ❑ Other _____

LOCKS

- ❑ Missing Lock
- ❑ Incorrect Latch Bolt Throw
- ❑ Non-fire Rated Latch Bolt
- ❑ Latch Bolt Binds
- ❑ Latch Bolt Missing
- ❑ Loose Lever(s) or Knob(s)
- ❑ Latch Bolt Does NOT Engage Strike
- ❑ Missing Strike Plate
- ❑ Missing Screw(s)
- ❑ Missing Flush Bolt
- ❑ Missing Flush Bolt Strike
- ❑ Other _____

FIRE EXIT HARDWARE

- ❑ Missing Fire Exit Device
- ❑ Missing Latch Bolt Assembly (Top)
- ❑ Missing Latch Bolt Assembly (Bottom)
- ❑ Missing Strike(s)
- ❑ Missing Vertical Rod (Top)
- ❑ Missing Vertical Rod (Bottom)
- ❑ Push Bar Does NOT Extend Halfway Across Door Width
- ❑ Non-fire Rated Panic Hardware (Dogging)
- ❑ Missing Lever or Knob

FIRE EXIT HARDWARE (cont.)

- ❑ Other _____
- ❑ Missing Door Closer(s)
- ❑ Leaking Door Closer(s)
- ❑ Missing Arm(s)
- ❑ Broken Arm(s)
- ❑ Missing Closer(s)
- ❑ Does NOT Close Door Completely
- ❑ Missing Screw(s)
- ❑ Missing Drop and/or Adapter Plate(s)
- ❑ Hold-open Arm(s)
- ❑ Missing Coordinator
- ❑ Missing Carry Bar
- ❑ Broken Coordinator
- ❑ Broken Carry Bar
- ❑ Overhead Hold-open (Surface or Concealed)
- ❑ Other _____

MISCELLANEOUS

- ❑ Missing Threshold/ Saddle
- ❑ Incorrect Clearance (Top of Door to Frame)
- ❑ Incorrect Clearance (Hinge Edge to Frame)
- ❑ Incorrect Clearance (Lock Edge to Frame)
- ❑ Incorrect Clearance (Door Bottom to Floor)
- ❑ Incorrect Clearance (Between Doors)
- ❑ Missing Astragal
- ❑ Missing or Damaged Gasketing/Smoke Seal
- ❑ Kick-down Door Holder
- ❑ Door Wedge
- ❑ Door Stop with Hold Open (Manual)
- ❑ Protection Plate(s) too Large
- ❑ Protection Plate(s) Missing screw(s)
- ❑ Signage Too Large
- ❑ Signage, Screwed/Nailed to Door
- ❑ Other _____

FDAI

A Program of the Door and Hardware Institute

("White" copy is ORIGINAL • "Pink" copy is DUPLICATE COPY • "Yellow" copy is INSPECTOR'S COPY)"

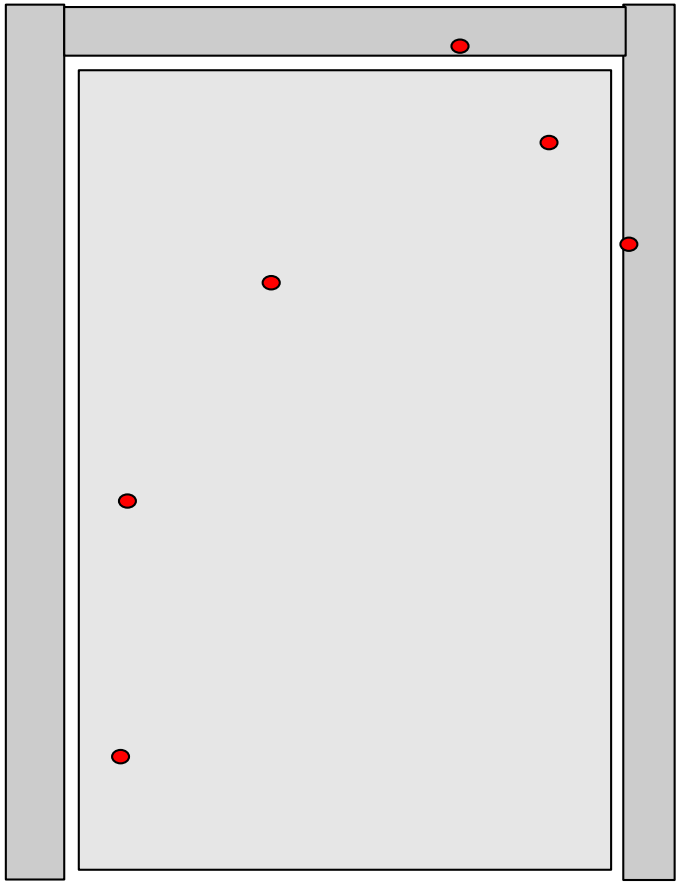
FORM 4

NFPA 80 2010 Edition
Fire Door Inspection Requirements

AS A MINIMUM!

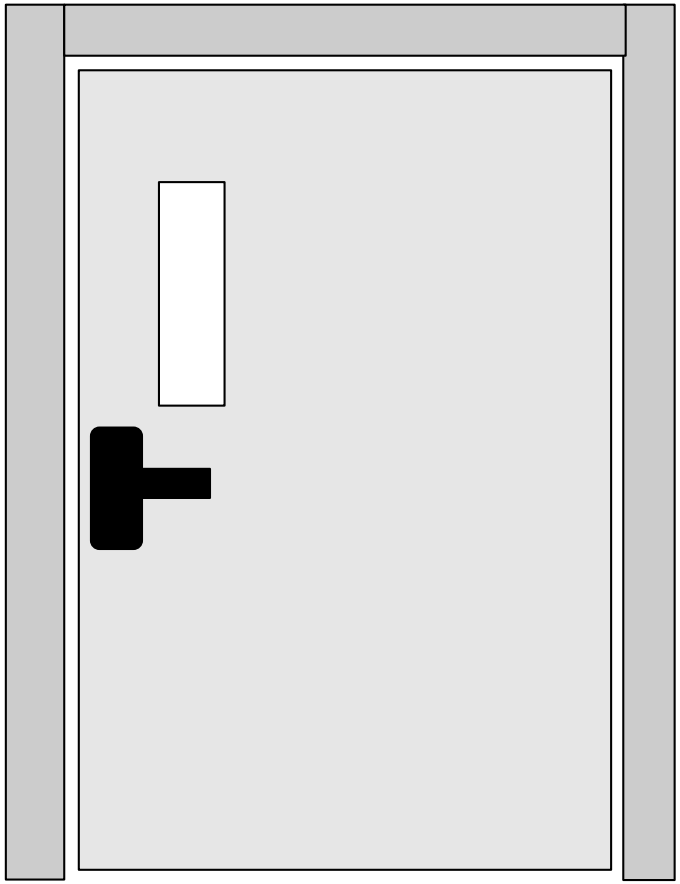
NFPA 80 2010 Edition
Fire Door Inspection Requirements

No open holes or breaks…



NFPA 80 2010 Edition
Fire Door Inspection Requirements

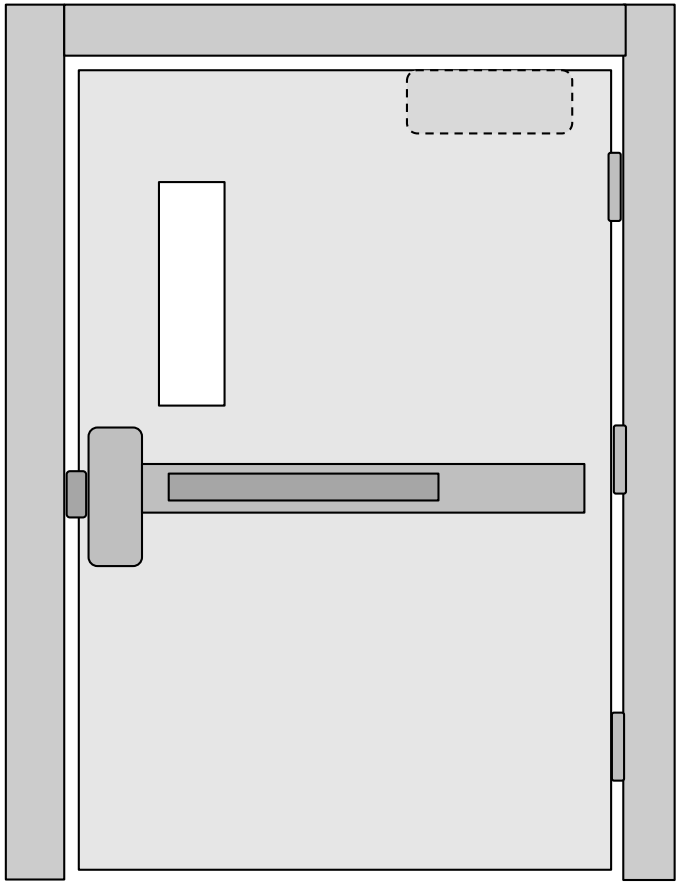
Glazing… intact and securely fastened…



Examples of labels

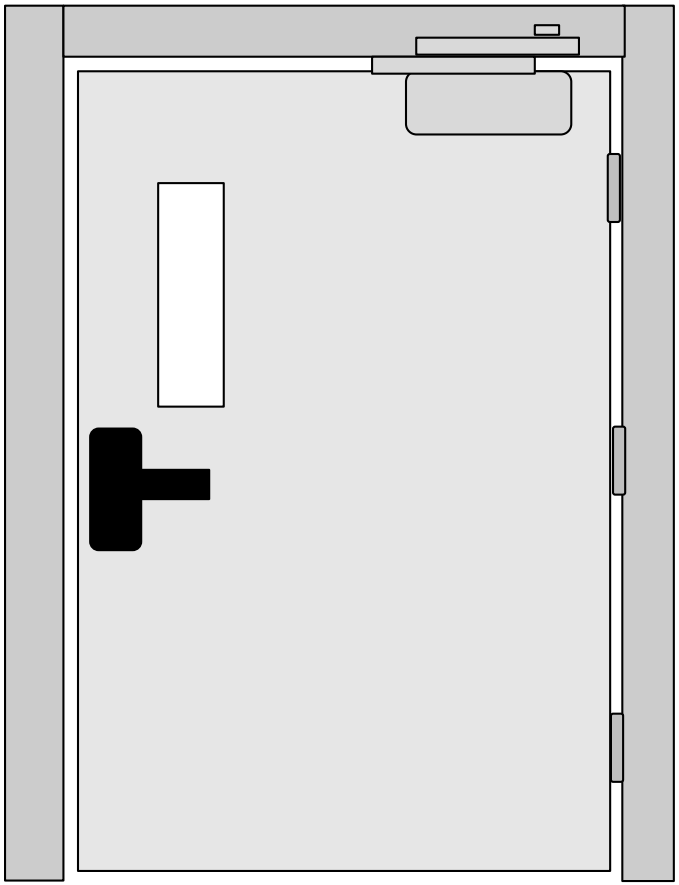
NFPA 80 2010 Edition
Fire Door Inspection Requirements

…secured, aligned, and in working order…



NFPA 80 2010 Edition
Fire Door Inspection Requirements

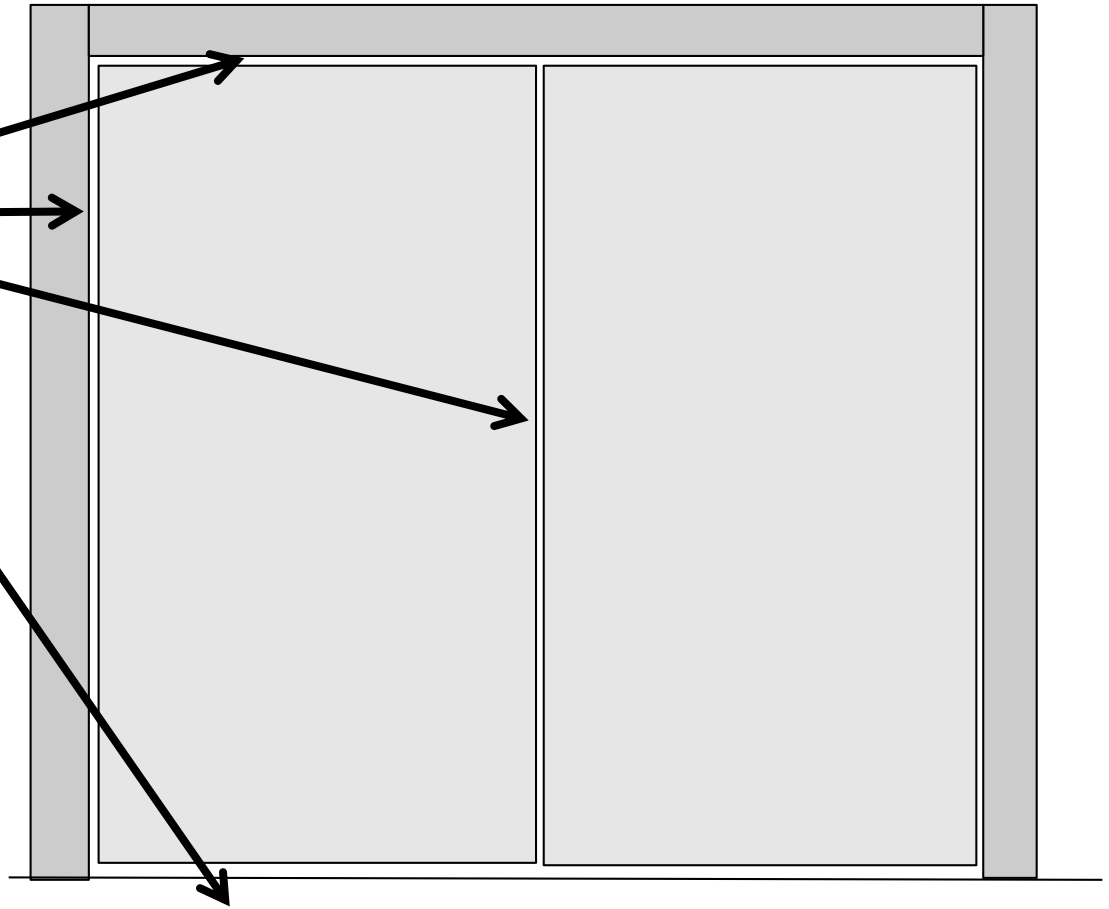
No missing or broken parts



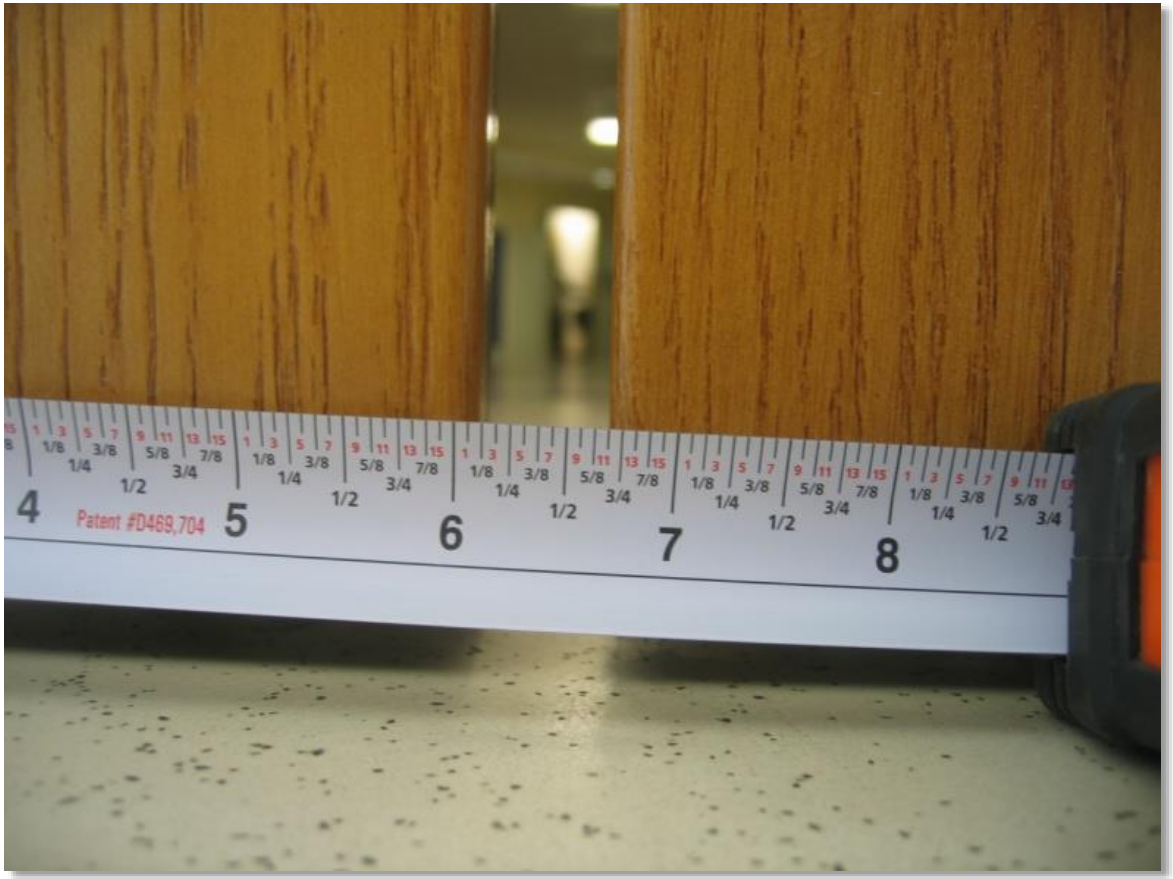
Missing Parts

NFPA 80 2010 Edition
Fire Door Inspection Requirements

Clearances are limited to…

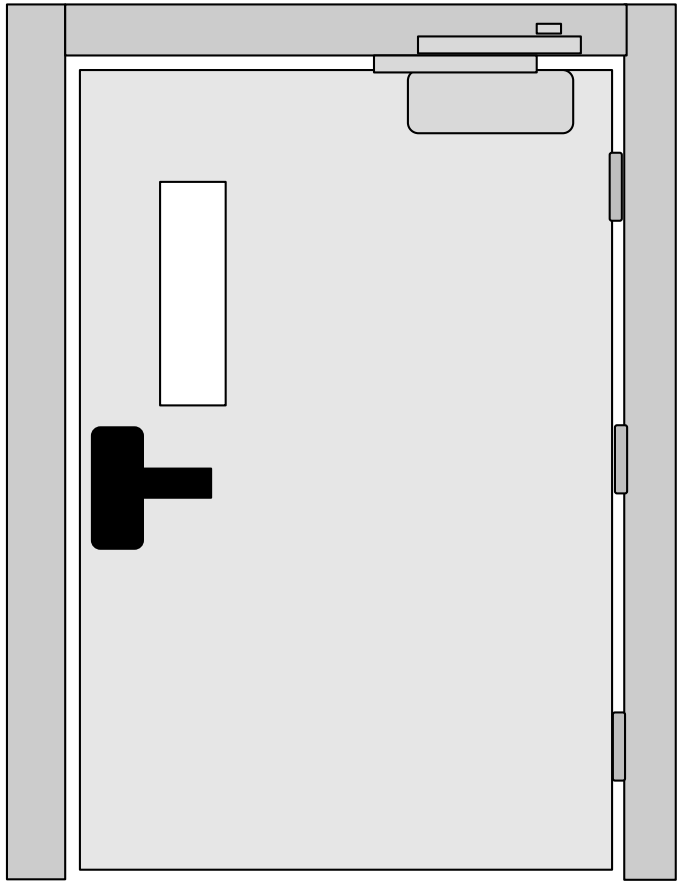


Clearances



NFPA 80 2010 Edition
Fire Door Inspection Requirements

Self-closing device… completely closes from full open position



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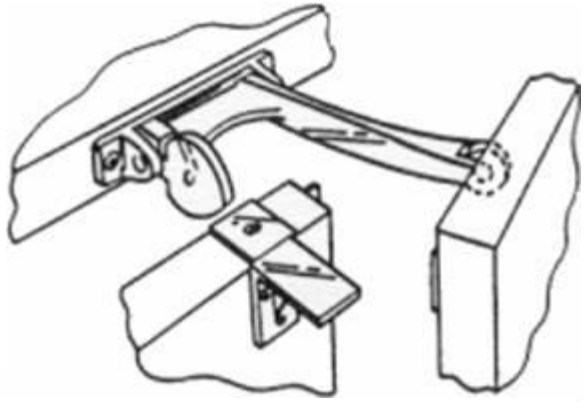
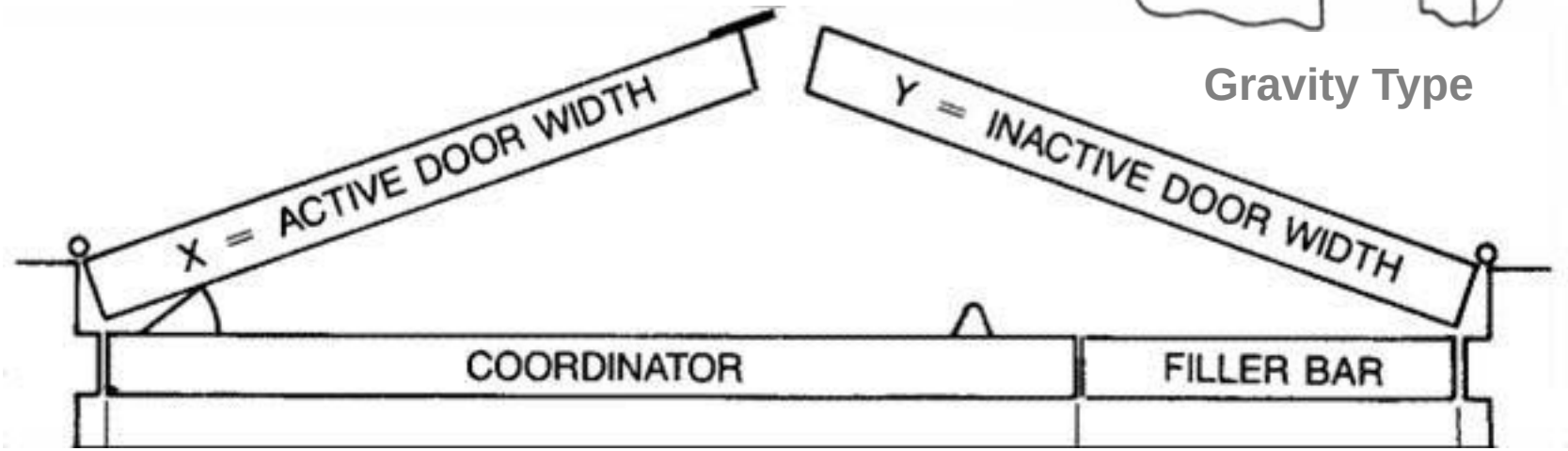
Fire Door Inspection Requirements

If coordinator… inactive leaf must close before the active leaf



Gravity Type



Bar Type

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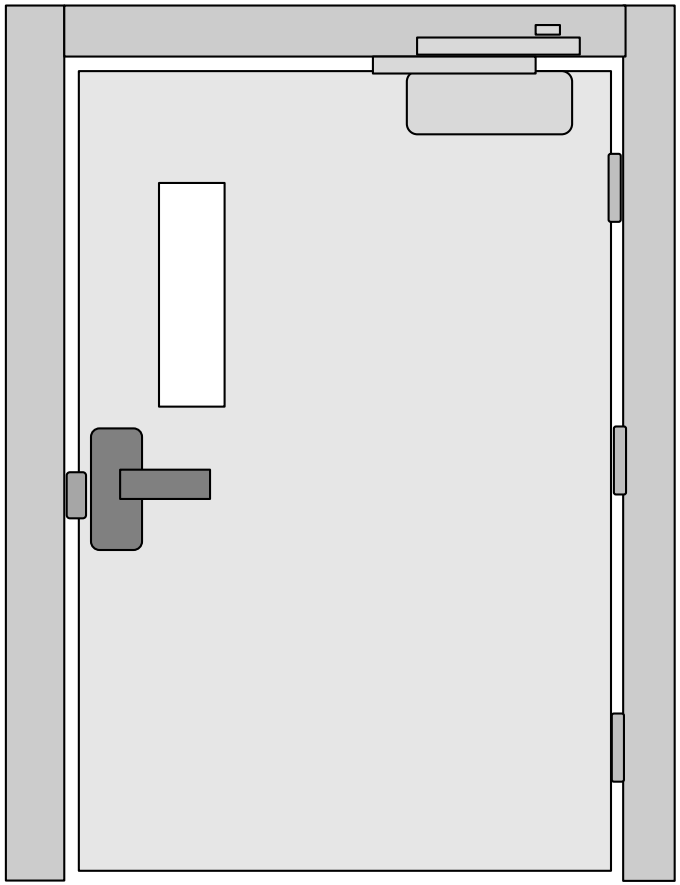
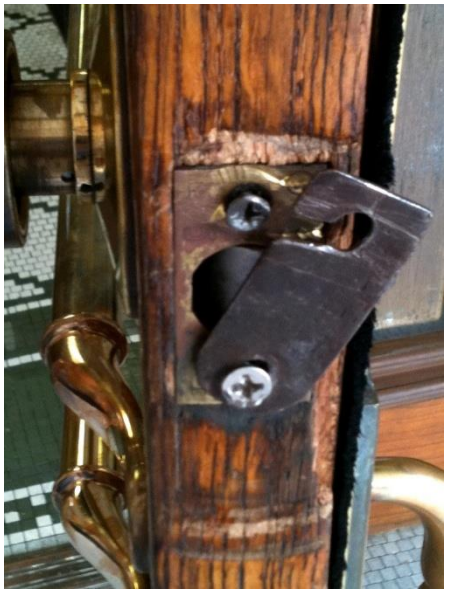
Fire Door Inspection Requirements

Latching hardware operates and secures…





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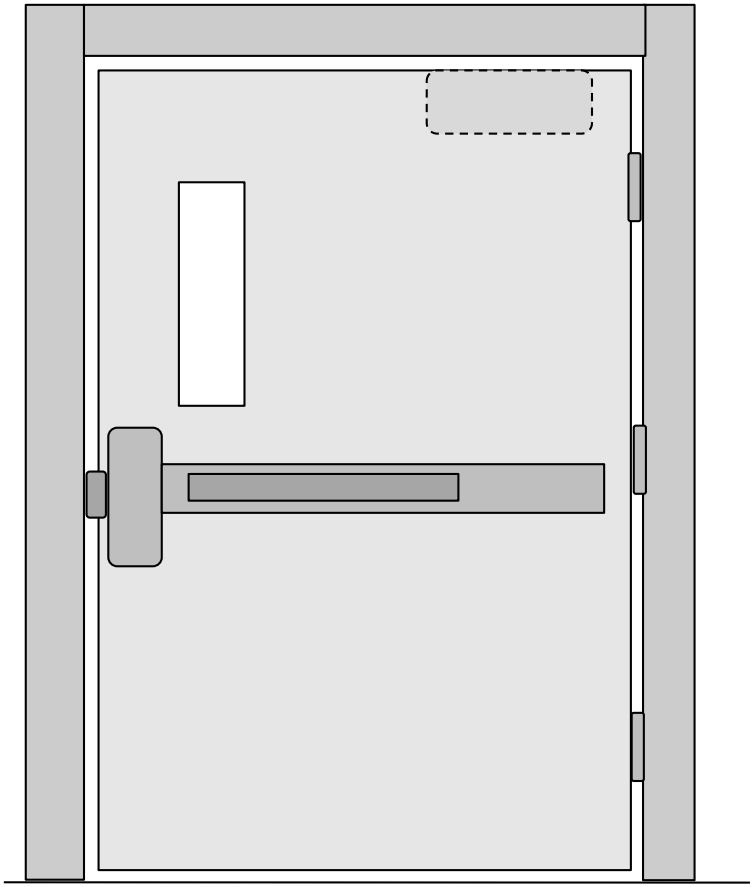
Fire Door Inspection Requirements

Fire Exit Hardware…



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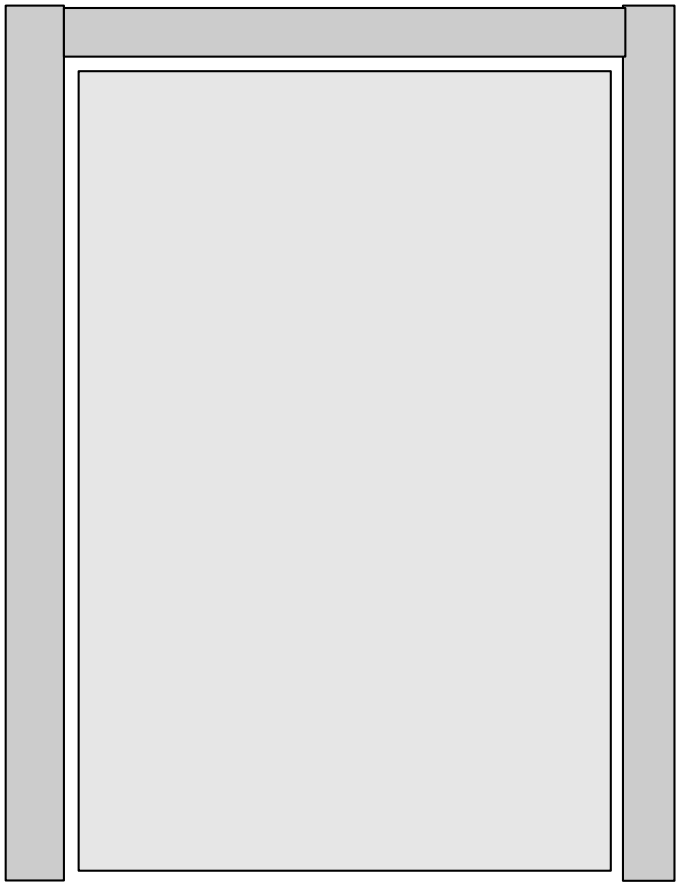
Fire Door Inspection Requirements

Nothing that interferes with the operation…



Interference

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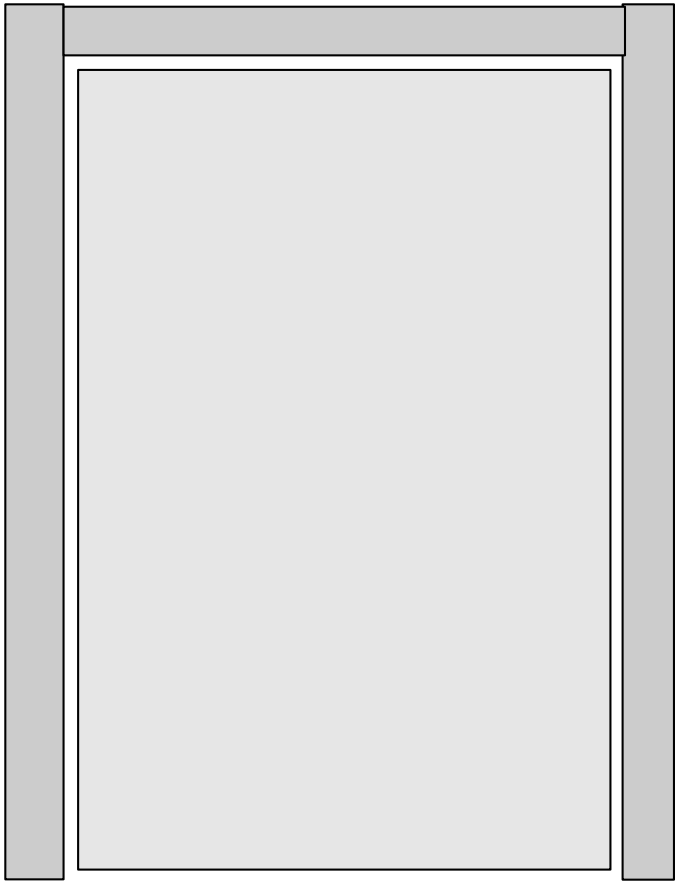
Fire Door Inspection Requirements

No field modifications that void the label!



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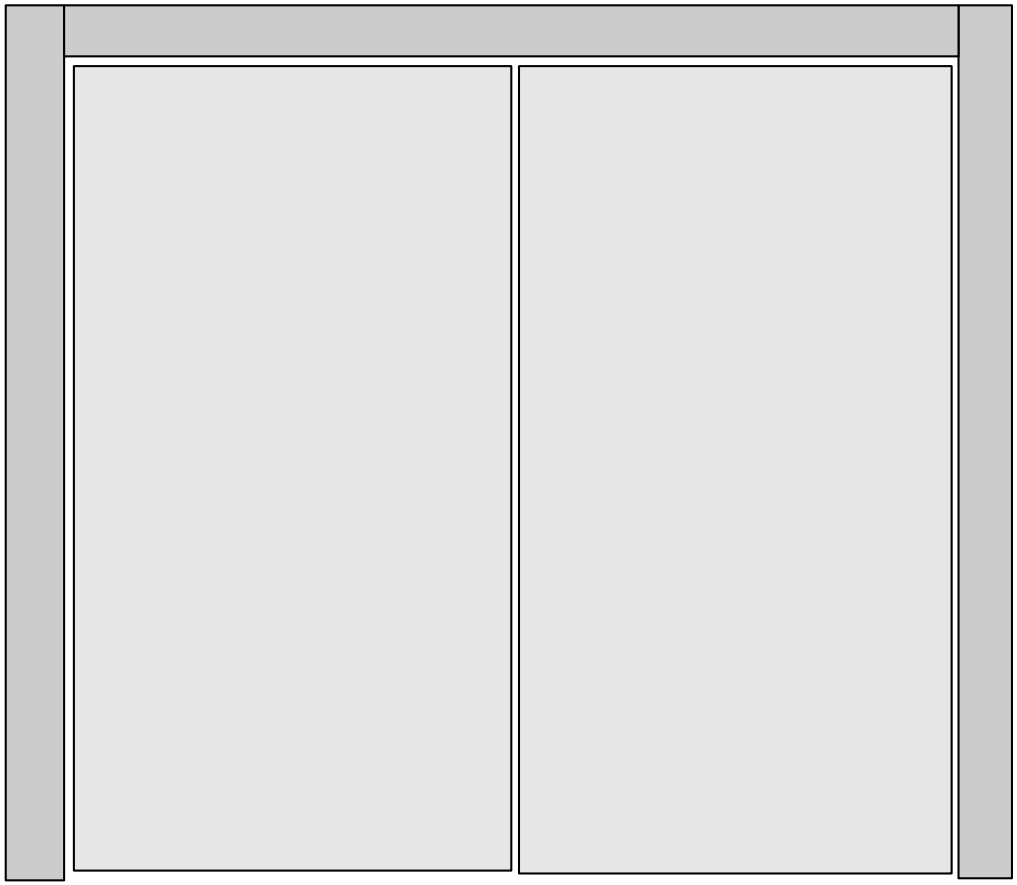
Fire Door Inspection Requirements

If required, gasketing and edge seals… presence and integrity



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Fire Door Inspection Requirements

Per 5.2.1 “Fire door assemblies shall be inspected and tested not less than **annually**, and a **written record** of the inspection shall be signed and kept for the inspection by the **AHJ.**”

The Performance-Based Option

When there are THOUSANDS of Fire Doors…

An AUDIT program

Subject to the AHJ

After a Fire…

…with Properly-Functioning Fire Doors

With Properly-Functioning Fire Doors

At Minimum, What Will You Test & Inspect?

As A Minimum

5.2.4.2 As a minimum, the following items shall be verified:

(1) No open holes or breaks exist in surfaces of either the door or frame.
(2) Glazing, vision light frames, and glazing beads are intact and securely fastened in place, if so equipped.
(3) The door, frame, hinges, hardware, and noncombustible threshold are secured, aligned, and in working order with no visible signs of damage.
(4) No parts are missing or broken.
(5) Door clearances do not exceed clearances listed in 4.8.4 and 6.3.1.7.
(6) The self-closing device is operational; that is, the active door completely closes when operated from the full open position.
(7) If a coordinator is installed, the inactive leaf closes before the active leaf.
(8) Latching hardware operates and secures the door when it is in the closed position.
(9) Auxiliary hardware items that interfere or prohibit operation are not installed on the door or frame.
(10) No field modifications to the door assembly have been performed that void the label.
(11) Gasketing and edge seals, where required, are inspected to verify their presence and integrity.

More Information?

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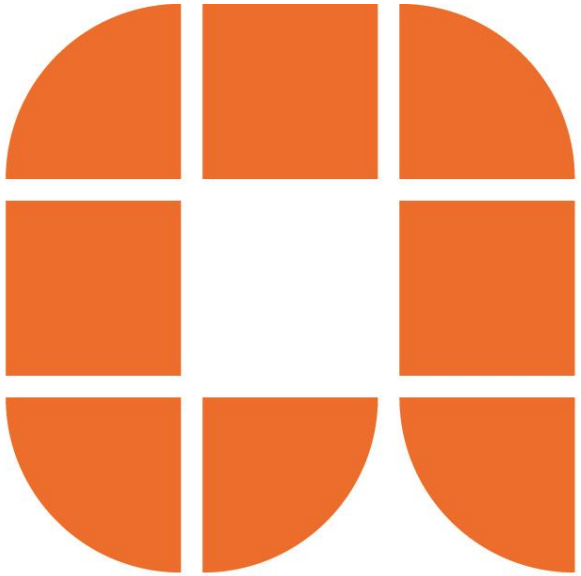

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