

# Pre-Load Test Evaluation - 809 Calhoun St, Fort Wayne, IN 46802

## Pre-Load Test Evaluation by Fire Escape Engineers

is an approved member of Fire Escape Services Network

**Contact:** [800-649-3333](tel:800-649-3333) or [info@FireEscapeEngineers.com](mailto:info@FireEscapeEngineers.com)



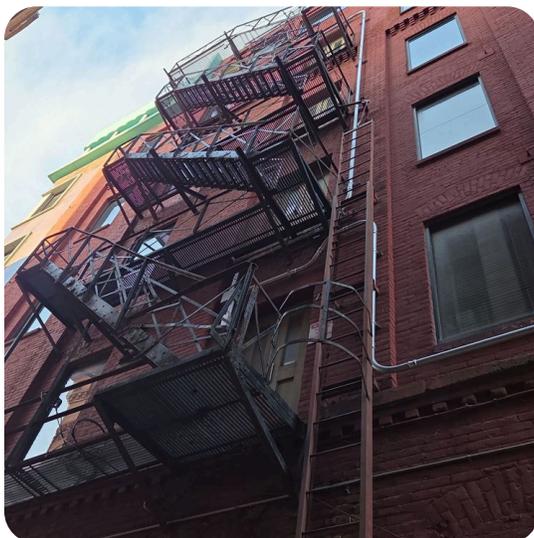
**Case Number:** 6111

**Address:** 809 Calhoun St, Fort Wayne, IN 46802

**Building Description:** 5-story brick structure with 1 system on the building.

**System (B)** = Fail Major with Imminent Safety Hazard (ISH)

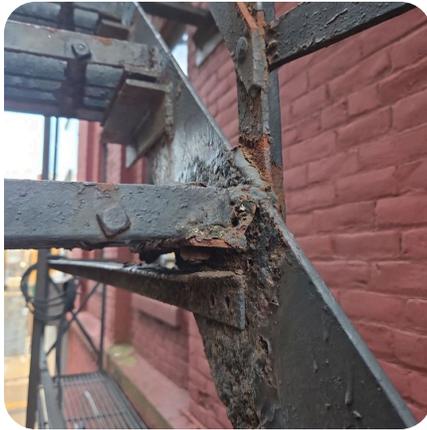
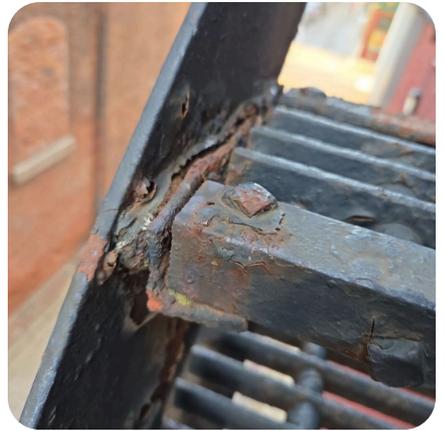
## Systems Overview:

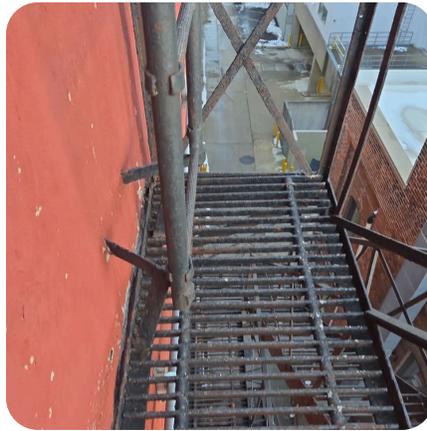
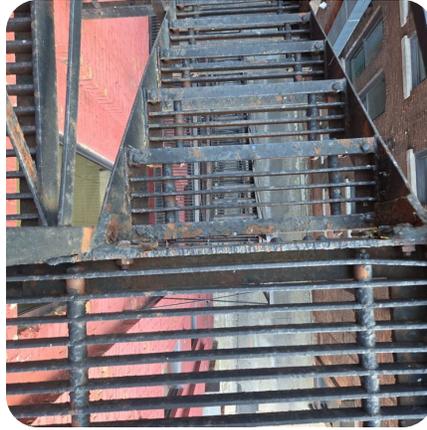


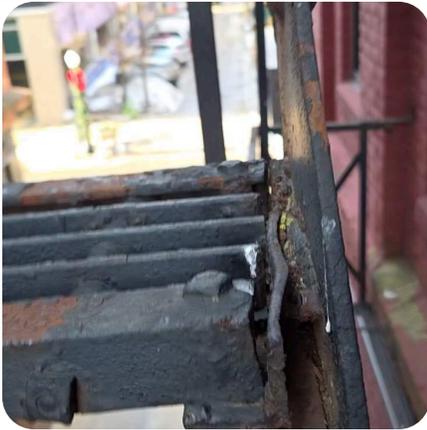
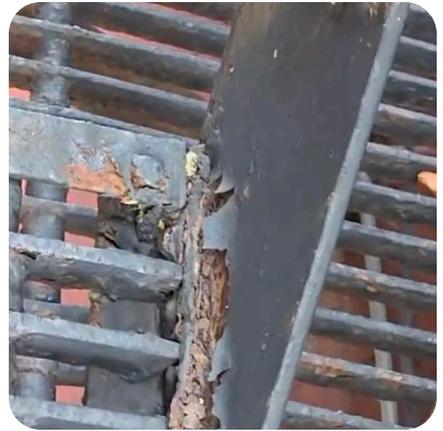
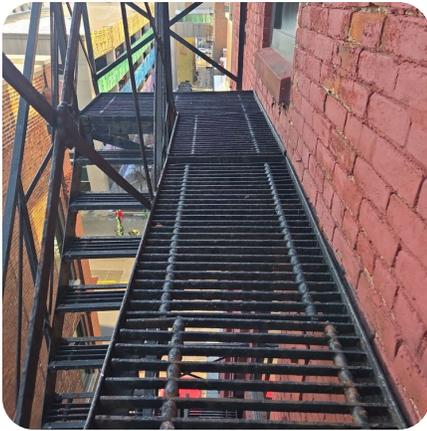
**System (B)** is made of painted steel and consists of fixed ladder, platforms, stairs, with stair egress to grade.

**Results:** Fail Major with Imminent Safety Hazards (ISH)

- Connections suspect with internal rust, rust jacking, and some material loss.
- Treads are suspect with advanced rust jacking at the tread-to-stringer connections.







## Components Overview:

### 1. Structural Summary

#### Supports & Cement:

- Overall supports are fair and functional, with widespread surface rust, some connections are suspect with internal rust.
- Cracking/spalling distress are noted in areas that may affect the reliability of embedded/anchored support zones and should be addressed to prevent water intrusion.

#### Platforms:

- Grating and platform areas show deterioration consistent with surface corrosion and debris retention with buildup at edges/corners. These conditions overtime can reduce

section capacity and accelerate deterioration at connections.

**Rails:**

- Overall fair and functional with some connections suspect with internal rust.
- One minor connection disconnected by rust jacking, needs repair.

**Stringers:**

- Stringer top and bottom clips are suspect with internal rust and missing bolts with reliance on welds in lieu of proper bolted clip connections.

**Treads: (ISH)**

- Treads are suspect with advanced rust jacking at the tread-to-stringer connections. Some are imminent safety hazards requiring immediate repair.

**Fixed Ladder:**

- The roof ladder must be replaced because it contains cast iron components. Cast iron is a brittle material that does not allow for effective or code-compliant repair, making replacement the only acceptable corrective action.

**Balanced Ladder:**

- Was not tested for functionality, appears fair and functional, has counterweight.

**2. Paint Summary**

Overall the paint **Fail: Full paint** on system required. Recommend to power wash and seal all major joints to prevent water intrusion into structural connections.

**Fire Escapes must be maintained/painted every 5–7 years as per manufacturer’s recommendation.**

**3. Code Summary**

**Our inspector found some code issues related to AHJ (Authority Having Jurisdiction) or PENC (pre-existing non-conforming) requirements for this Fire Escape system:**

1. No Egress Lighting

Code	Pass / Fail
<b><u>IFC 1104.16.7 Maintenance.</u></b> <b>(PAINT REQUIRED)</b>	<b>Paint - Fail</b> • <b>Full</b> paint required.

<p><b><u>IFC 1104.16.5.1 Examination.</u></b>  <b><u>IFC 1104.16.5 Materials and strength.</u></b>  <b>(LOAD TESTING, OTHER EVIDENCE)</b></p>	<p><b>Structural - Fail Major with Imminent Safety Hazard</b></p> <ul style="list-style-type: none"> <li>• Connections suspect with internal rust, rust jacking, and some material loss.</li> <li>• Treads are suspect with advanced rust jacking at the tread-to-stringer connections. Some are imminent safety hazards (ISH) requiring immediate repair.</li> </ul>
<p><b><u>IFC 1008.2 Illumination required.</u></b>  <b>(CODE)</b></p>	<p><b>Code - Fail:</b></p> <ul style="list-style-type: none"> <li>• No Egress Lighting;</li> </ul>
<p><b><u>NFPA Life Safety Code 101 7.2.8.6.2</u></b></p>	<p>AHJ shall approve certification by Load Test or Other Evidence of Strength</p>
<p><b>January 2010 Standard  Specification: Miscellaneous &amp;  Ornamental Metals — Fire Escapes  (Section 5A.10, Paragraph E)</b></p>	<p><b>NO FIELD WELDING is permitted in the repair of fire escapes. All repairs must be bolted or shop welded (then field bolted).</b></p>

## Applicable Codes

### IFC 1104.16.5 Materials and strength.

Components of fire escape stairways shall be constructed of noncombustible materials. Fire escape stairways and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.78 kN/m<sup>2</sup>). Fire escape stairways and balconies shall be provided with a top and intermediate handrail on each side.

### IFC 1104.16.5.1 Examination.

Fire escape stairways and balconies shall be examined for structural adequacy and safety in accordance with Section 1104.16.5 **by a registered design professional or others acceptable to the fire code official** every 5 years, or as required by the fire code official. An inspection report shall be submitted to the fire code official after such examination.

### IFC 1104.16.7 Maintenance.

Fire escape stairways shall be kept clear and unobstructed at all times and shall be maintained in good working order.

### IFC 1008.2 Illumination required.

The means of egress serving a room or space shall be illuminated at all times that the room or space is occupied.

### **NFPA Life Safety Code 101 7.2.8.6.2**

The Authority Having Jurisdiction (AHJ) shall approve any fire escape by Load Test or Certification (other evidence of strength).

## **Pre-Load Test Evaluation - Explained**

**IFC 1104.16.5.1 Examination:** *Fire escape* stairways and balconies shall be examined..... **An inspection report shall be submitted to the *fire code official* after such examination.**

Thank you for allowing us to perform an initial evaluation of your fire escape system. At this stage, our assessment was conducted either entirely from the ground or during a brief, complimentary visual walk through. In such cases, our inspection is *limited in scope* and relies heavily on binoculars, zoom lenses, and visual clues from accessible vantage points.

Because most structural issues—especially corrosion—occur at the *top of connections* or behind face-mounted hardware, ground-level evaluations often cannot confirm the condition of these critical areas. **This type of assessment is classified as a "Pre-Load Test Evaluation,"** which means it's designed to identify potential issues, but not to determine precise quantities, exact locations, or whether specific components can be certified for a load test at this time.

When we do gain physical access—either by ladder, stair, or platform—we can supplement our visual findings with a short video walkthrough (typically 5–10 minutes) that includes finger-pointed commentary highlighting which elements appear ready for load testing and which require further investigation or immediate repair. Still, even these faster, free-access walk-throughs remain preliminary in nature and do not substitute for a **full, paid evaluation** where every connection is systematically examined, documented, and photographed from all angles.

If you would like a more complete report suitable for vendor pricing, budgeting, or certification purposes, one of the following will be required:

1. **Hire Our Team for a Full Evaluation** – This includes time on the system, detailed photography, mapping, and formal reporting.
2. **Use One of Our Network Repair Vendors** – We'll contact our list of qualified vendors who can physically access the system and relay critical information back to us for final review and report completion.

3. **Coordinate Access with Your Own Trusted Repair Mechanic** – They must be capable of documenting on-system conditions so we can issue a load test certification, repair scope, or engineering findings.

We appreciate the opportunity to support your compliance journey and will guide you through the next steps needed to bring your fire escape system into full certification.

## Conclusion & Next Steps

Please let us know whether you intend to proceed as a **Do-It-Yourself (DIY)** client or if you would like to engage our team under the **Vendor Management Oversight (VMO)** program. Both options require coordination with your local authority (AHJ – Authority Having Jurisdiction) and thorough documentation to ensure your fire escape system meets certification standards.

1. **Identify a Responsible Party, Design Professional or Others Acceptable to AHJ.**
2. **Create Construction Control Document / Inspection Report. To determine if permit is required or not, by the Building Department.**
3. **Verify that the Repair Vendor is Licensed and Insured to Perform Repairs / Painting.**
4. **Load Test Upon Completion of All Repair Work or Certify via Other Evidence of Strength in lieu of Load Test. Optional: Opinion Affidavit with Disclaimer of Liability.**
5. **Client is Responsible for Identifying Design Professional or Others Acceptable to AHJ Before Any Work is to be Performed other than Emergency Repairs to make Fire Escape Functional until Permanent Repairs are Scheduled.**

## Option 1: DIY Path – You Manage the Process

If you plan to manage your own vendors and documentation, you are responsible for complying with all applicable **fire, building, and EPA regulations**. The following steps must be followed:

### DIY Compliance Steps

#### 1. Notify the City Official

Contact your local **Fire Marshal or Building Department** and:

- Inform them you've engaged a **design professional** (engineer, architect, or other acceptable party) to inspect and evaluate the fire escape.
- Request clarification on:

- Whether they treat missing lights as a **pre-existing, nonconforming condition**, or if full **egress illumination** is required.
- Whether **permits** are needed for restoration/repairs based on the findings.
- Whether they wish to **witness the inspection**.

## 2. Inspection & Documentation

- Hire a **licensed engineer, architect, or other AHJ-approved fire escape inspector**.
- Vendors must conduct a **full-system walkthrough**, accessing every platform, tread, and connection.
- All deficiencies must be **documented** and a **repair scope** submitted to the owner and AHJ.

## 3. Scope Review & Permitting

- A **design professional** must review the repair scope and determine whether permits are required by the AHJ.

## 4. Designate a Responsible Party

- Notify the city who will **supervise the repair process**, ensuring work is performed in accordance with the approved scope (with or without permits).

## 5. Repair Restrictions (Lead Paint & EPA Compliance)

- **Welding is strictly prohibited** on fire escapes built before 1978.
- **No field welding** is permitted under any circumstances.
- Repairs must be **bolted or shop welded and field-bolted**.
- Violations may result in **EPA fines exceeding \$37,500**.

## Option 2: VMO Path – We Manage the Process for You

If you prefer a fully managed solution, our **Vendor Management Oversight (VMO)** program provides professional oversight, technical guidance, and final certification support.

### What's Included in VMO:

- **Initial Evaluation Report & Photo-Video-Technical Repair Report**
  - One-page summary indicating **Pass, Fail, or Imminent Danger**
  - Includes ground or physical findings, photos, and optional video

- **AHJ Communication & Coordination**
  - We notify the city and clarify inspection witness needs, lighting requirements, and permit conditions
- **Daily Vendor Oversight**
  - We review daily photos/videos from your vendor
  - Ensure repairs follow approved methods and meet IFC and IBC codes
  - Prevents illegal welding; ensures proper bolting and documentation
- **Inspection Video Summary**
  - Narrated walkthrough highlighting deficiencies and identifying components ready for load testing
- **Final Report & Certification**
  - 25-point confidence checklist with repair recommendations/requirements
  - Photographs and final walkthrough video by our inspector
  - Certification issued via **Load Test** or **Other Evidence of Strength**
- **Password-Protected Webpage**
  - Central hub for documentation such as: inspection report, inspection video(s), inspection photos
  - Easily shareable with AHJ, owner, property managers, and agents

## **Request for Proposal (RFP) Options. (Fees to be paid by owner/agent or vendor)**

Following this initial inspection, the property owner has the option to either proceed as a **Do-It-Yourself (DIY) client**—managing their own outreach to local vendors—or enroll in our **Vendor Management Oversight (VMO)** or **Project Management Oversight (PMO)** programs, where we coordinate the process on your behalf. Regardless of your selection, all projects remain eligible for RFP distribution.

- **For DIY clients**, it's your responsibility to invite vendors to the property and provide access so they can walk through the fire escape system and prepare their own scope and quote. (We can provide additional information to your repair vendor at additional cost.)

- **Most vendors only provide 1 year warranty on work performed.**
- **For clients utilizing our VMO/PMO service**, we simplify this process by issuing a detailed RFP package to our pre-screened vendor network. These vendors review our inspection photos, summary findings, and any available site data—allowing them to submit accurate preliminary bids **without needing to visit the site**, unless shortlisted. This minimizes disruptions and ensures that only cost-aligned, code-qualified bids move forward.
- **We provide a 15-25 year warranty on all work performed.**
- **25 year warranty provided with Corrosion Protection Plan.**
- **Network partners / repair mechanics: 5-15 year warranties under VMO/PMO.**

## Load Testing Considerations

- If recent **structural bolting** has been completed, a **partial/integrated load test** may apply.
- Otherwise, a **full load test** is required unless waived by other evidence of strength (as determined by a design professional or others acceptable to the AHJ).

## Temporary Certifications (If Applicable)

- If the fire escape is scheduled for **removal or replacement within 5 years**, a **temporary 5-year certification** may be available, but **still requires load testing**

## Why Load Testing Your Fire Escape Is the Smartest Choice Right Now

Load testing is the **only way to fully remove liability** from you, your insurance carrier, and the city. Here's why:

- **Opinion affidavits come with disclaimers** that cities often won't sign off on — and insurance companies won't want you to sign either, because it puts all the legal risk on them (and you).
- **Load testing is definitive**: it proves your 75–125+ year-old fire escape can handle emergency use — no guesswork, no disclaimers.
- It's **100% code-compliant, certified**, and good for up to 5–25 years depending on the city and scope.
- It also protects your tenants and your building's value — like testing a sprinkler system or

elevator.

**Bottom line:** Load testing clears your liability, satisfies the city, and keeps your insurance coverage secure.

## **Fire Escape Financing - Powered by Fire Escape Services Network**

Need critical fire escape repairs, inspections, or certifications—but want to spread out the cost? Our **Fire Escape Financing** program offers flexible, interest-free payment plans that make safety upgrades more accessible than ever.

### **What We Offer:**

- **0% Interest Financing** (3–6 months standard)
- **12-Month Interest-Free Extension** for qualifying projects over \$50,000
- **No credit check required**
- Available for **inspections, repairs, drawings, load testing, and full project oversight**
- Financing is available across all **FESN brands and services**

### **Who Qualifies:**

- Property owner must sign the agreement
- Project must be directly managed by FESN **or an approved vendor from our network**
- In special cases, even **client-selected vendors** can participate—if they agree to our financing terms

### **Extended Financing:** Need longer than 12 months?

We also offer **1–15 year financing options (with interest)** through an **affiliated third-party loan provider** for **residential properties only**.

### **Important Notes:**

- **No warranties or certifications** will be released until full payment is received
- All financing agreements include lien protections and binding arbitration clauses
- Legal homeowner signature is required to proceed

### **Ready to Get Started?**

Whether you're working with our team or a vendor you trust, we can help finance your fire escape project—with transparency, flexibility, and legal protection for everyone involved.

**More information available upon request.**

Just ask your project coordinator or contact us directly to activate **Fire Escape Financing** today.

## **WELDING PROHIBITED FOR RESTORATION/REPAIRS ON FIRE ESCAPES**

### **Fire Escape Repair & Lead-Hazard Compliance Policy**

#### **1. Structural Repair Policy: No Field Welding on Bolted or Riveted Fire Escapes**

 **Key Code Provision — January 2010 Standard Specification: Miscellaneous & Ornamental Metals — Fire Escapes (Section 5A.10, Paragraph E):**

**“NO FIELD WELDING is permitted in the repair of fire escapes. All repairs must be bolted or shop welded (then field bolted).”**

- **“Field welding”** refers to any welding performed on-site, as opposed to factory or shop welding.
- **Shop welding** (completed off-site under controlled conditions) is permitted **only if original design or prefabrication allows for welding**.
- **Bolt or rivet-type fasteners** must be replaced in kind—matching original hardware type and method.

#### **2. EPA Lead-Based Paint Compliance (Pre-1978 Structures)**

Under the **EPA Renovation, Repair and Painting (RRP) Rule**, work on residential or child-occupied buildings built **before 1978** often involves lead-based paint. Welding that disturbs painted surfaces is subject to strict regulation.

- **Welding is effectively prohibited** on such components unless:
  - An **EPA-certified renovator or firm** oversees the work, and
  - **Lead-safe work practices** are fully implemented (containment, HEPA vacuums, disposable protective gear, etc.).
- **Violations** can result in civil penalties up to **\$37,500 per violation, per day** for non-compliance with EPA RRP Rule provisions regarding lead hazard disturbance.

### 3. Combined Table: Welding & Lead-Hazard Prohibition

Condition	Field Welding Allowed?	EPA RRP-Compliant on Pre-1978 Structure?
Fire escape originally fastened with bolts or rivets	No — prohibited by 2010 code	No — welding disturbs lead paint
Shop welding precise fittings or new prefabricated parts	Yes — If performed off-site under control	Only if conducted under EPA certified RRP
Bolt or rivet replacement / mechanical fasteners	Yes — required repair method	Yes — with lead-safe protocols

### 4. Recommended Compliance Actions

1. **Confirm the era** of the structure—pre-1978 implies high likelihood of lead-based paint.
2. **Avoid any field welding** on fire escapes originally assembled with bolts or rivets.
3. **Use mechanical fastening** (bolts/rivets) and ensure replacement matches original methodology.
4. If welding is necessary for prefabricated components:
  - Ensure welding is done in a **shop setting**, not on-site.
  - For pre-1978 buildings, all surface-prep and welding work must follow **EPA RRP certified protocols**.
5. Engage a **licensed structural engineer** and a **certified RRP renovator or firm** before undertaking repairs.

### 5. Legal Reference Summary

- **“No field welding is permitted in the repair of fire escapes. All repairs must be bolted or shop welded (then field bolted).”** — Standard Specification 5A.10 (Miscellaneous & Ornamental Metals), January 2010
- **EPA RRP Rule enforcement** (1978-era structures): fines up to **\$37,500/day per violation** for unauthorized disturbance of lead-based painted surfaces.

***Whether you choose to manage the process independently or allow us to guide you through it, we ensure you have the tools and documentation to solicit and compare bids confidently—or, if you prefer, you can bypass the bid process entirely and engage our***

*certified team based on trust, warranty, and proven experience.*

# NATIONAL FIRE ESCAPE ASSOCIATION (NFEA) Safety & Certification Bulletin Eliminating a Century of Neglect and Liability

## — Fire Escape Certification by Load Test

- Building Owners & Property Managers
- Building Departments (Authorities Having Jurisdiction)
- Fire Departments (Users of Certified Systems)
- Insurance Agents & Underwriters (Liability for Non-Certified Systems)

## Introduction — The Roof You Forgot About

A fire escape is no different from a roof. Both were built under permit, both protect lives, and both were meant to be maintained. The difference is that every owner knows a roof must be replaced every 25–45 years — but most fire escapes, built between 1900 and 1950, have never been inspected or load tested in 75–125 years.

- A leaking roof costs money.
- A failed fire escape costs lives — and triggers lawsuits, denied claims, and personal financial loss.

## The Code Has Always Been There

Since 1927, the **NFPA 101 Life Safety Code** has required that ***“the authority having jurisdiction shall accept by load test or other evidence of strength”*** any fire escape used for egress.

Today, that same requirement appears in:

- **IFC §1104.16.5** — Mandates load testing or other proof of strength every five years.
- **IBC §1001.3** — Governs installation and maintenance of means of egress.
- **Oregon Fire Code (based on IFC)** — The model for all 50 states, outlining clear

exceptions and visible tagging standards.

- **OSHA §1910.37** — Requires two certified means of egress during any occupied construction, renovation, or demolition.

### **The Oregon Model — Visible Proof of Safety**

Oregon's Fire Code specifies a fire escape tagging system visible to firefighters, inspectors, and tenants:

- White Tag: Certified safe for emergency use.
- Yellow Tag: Repairs pending — use with caution.
- Red Tag: Unsafe — do not use.

These tags allow firefighters to identify safe access points instantly, while giving tenants and inspectors the ability to notify owners or city officials when certification has lapsed.

This system transforms public safety from an invisible liability into visible accountability.

### **Who Can Inspect or Certify**

Only three types of professionals may examine and certify fire escapes:

1. A registered design professional (engineer or architect).
2. A registered architect in the state.
3. Others acceptable to the building official — typically Certified Fire Escape Inspectors trained and approved by the National Fire Escape Association (NFEA).

Repair contractors may not certify their own work — inspections and repairs must be performed by separate qualified, insured entities to prevent conflicts of interest.

### **Owner Liability — The Unseen Risk**

If anyone — tenant, visitor, contractor, or even an intruder — is injured or killed on a non-certified fire escape, the owner is personally liable.

Examples of liability:

- A tenant steps out to smoke and the stair collapses.
- A contractor uses the platform for window repair and the bolts fail.
- A thief climbs up and falls when the tread gives way.

No five-year load test = no defense.

Courts treat uncertified fire escapes as negligence per se — a direct violation of life-safety law.

### **City & Fire Department Liability — Enforcement Failure**

Authorities Having Jurisdiction (AHJs) now carry risk if they fail to enforce the five-year rule. While cities require certifications for elevators, sprinklers, alarms, and extinguishers, many ignore fire escapes entirely — even though they are a critical life-safety system designed for use without firefighter presence.

Firefighters are trained not to use uncertified fire escapes.

White tagging restores their confidence and protects municipalities from injury or death claims involving city employees.

### **Insurance Liability — A Century of Neglect**

Insurance companies have insured millions of buildings for decades without once verifying that fire escapes were safe or certified. In many cases, there isn't even an engineer's affidavit on file.

This means every accident — a tenant fall, a firefighter injury, or a public fatality — becomes an automatic payout, with no legal basis to deny the claim.

### **The Solution — The 30-Day Insurance Letter**

NFEA recommends that all insurers immediately implement the following standard notice:

"If your building has an exterior fire escape (wood or steel), you must provide certification by load test within 30 days. Coverage will continue; however, any incident involving an uncertified fire escape may be excluded from liability."

This mirrors requirements already enforced for elevators, sprinklers, and alarms, ensuring equitable standards across all life-safety systems.

### **OSHA & Temporary Egress Standards**

Under OSHA §1910.37, every occupied structure must have two certified means of egress.

If a fire escape cannot be certified:

1. Block access and post "Do Not Use" signage.
2. Install OSHA-compliant scaffold stairs (36-inch tread width, 7/11 rise/run for occupied structures).

For unoccupied construction sites, temporary scaffolds with 24-inch treads and 8/8 rise/run may be used, with AHJ and Fire Department approval.

### **Confidence Testing — The National Benchmark**

The NFEA 25-Point Confidence Test is the national standard for fire escape evaluation.

Adopted by Lowell (MA), Yonkers (NY), Seattle (WA), Portland (OR), and Los Angeles (CA), it assesses:

- Structural integrity,
- Paint and corrosion condition,
- Code compliance and anchorage,
- Pre-existing non-conforming conditions.

One-page "opinion affidavits" — still used in many cities — carry disclaimers ("to the best of my knowledge and belief") that have led to millions in liability claims.

### **Conclusion — One Load Test Ends a Century of Liability**

For a century, each stakeholder assumed someone else was maintaining fire escapes.

No one was.

Now, every building owner, AHJ, and insurer has the same clear obligation:

Certify, load test, and tag every fire escape every five years.

It protects tenants, firefighters, and first responders.

It shields cities and insurers from costly lawsuits.

And it saves lives — one fire escape at a time.

A fire escape is a life-safety system, not an ornament.

Certification by load test is not optional — it's overdue.