

PORTLAND FIRE & RESCUE

APRIL 30, 2020



FIR 2.08 - FIRE ESCAPES

I. SCOPE

- A. This policy is established February 12, 2008, and replaces previous policies CE B-3, B-9, and B-12. This policy combines elements from all three policies, the 2016 Portland Fire Code, and the 2019 Oregon Structural Specialty Code into this single document.
- B. It is the purpose of this policy to:
 - 1. Establish procedures for the inspection, evaluation and testing of fire escapes, and to provide information pertaining to the acceptable methods of repair when needed.
 - 2. Address the process for removal of counterbalance stairs.
 - 3. Address the removal of fire escapes.
- C. This policy applies to all structures where Portland Fire & Rescue (PF&R) has authority.
- D. The City of Portland currently has more than 600 fire escapes that are attached to existing buildings and are part of the required emergency egress system or serve as firefighting platforms. Many of these fire escapes and the buildings they are attached to are very old. Without routine maintenance, deterioration can result in fire escapes becoming unsafe for use by occupants or firefighters during an emergency.
- E. Counterbalance stairs allow occupants to exit fire escape platforms. Some building owners request the removal of counterbalance stairs to prohibit unauthorized use for entry into buildings. This policy provides guidance to resolving this public safety issue.
- F. When exit systems throughout a building are upgraded, an owner may request removal of existing exterior fire escapes as part of the commercial building permit process.

II. SPECIFIC

- A. References
 - 1. Portland City Code (PCC) Title 31, 31.20.080
 - 2. 2016 Portland Fire Code (PFC)
 - 3. 2019 Oregon Structural Specialty Code (OSSC)

III. GUIDANCE

A. Implementation of testing and repair

1. At the first available fire inspection, following the effective date of this policy, fire inspectors shall perform a visual inspection of the fire escape(s).
2. The fire inspector shall determine whether the fire escape is an “imminent hazard” based upon key visual indicators (refer to Attachment #6). Key visual indicators include missing pieces, deformation of joints due to rust development, loose or absent connections between pieces, or degraded connections to the structure.
3. If the inspector determines a fire escape is an imminent hazard, an order shall be placed for an evaluation and certification of the fire escape by a registered design professional. This evaluation and certification must comply with Section III A, items 5, 6 and 7 of this policy. NOTE: The definition of a Registered Design Professional can be found in the Oregon Structural Specialty Code.
4. If the fire escape is **not** deemed to be an imminent hazard following the visual inspection, the building owner will then have 5 years from the date of the first available visual inspection by a fire inspector to complete an evaluation of the fire escape by a registered design professional and comply with Section III A, items 5, 6 and 7 of this policy.
5. An engineering assessment is required for the evaluation of a fire escape and shall involve a structural analysis and/or an in-situ load test.
 - a. The engineering assessment shall be based on the design criteria specified in Attachment #1.
 - b. In-situ load testing shall follow the requirements outlined in Attachment #2.
 - c. Structural analysis procedures shall follow the requirements outlined in Attachment #3.
6. During the evaluation process, if a fire escape component is determined to be in an unsafe/imminent hazard condition, the fire code official and building code official shall be notified immediately. Any deficiencies identified during the evaluation process shall be mitigated immediately. Any extensive repairs shall be performed under a permit through the City of Portland, Bureau of Development Services (BDS). Where permits are required for extensive repairs, a plan for mitigation of deficiencies, stamped by a registered design professional along with required calculations shall be submitted to BDS for review and approval. If work on a standpipe is also needed, a separate permit through the Fire Marshal’s Office shall be required. An alternative plan for emergency egress may be required.
7. A registered design professional shall provide an affidavit stating that the fire escape has been evaluated, all identified deficiencies have been mitigated, and the fire escape is structurally safe. See Attachment #4 for the affidavit.

8. After the affidavit is accepted, a placard shall be posted on the approved fire escape. The placard will be provided by the Fire Marshal's Office and must meet the following:
 - a. Placard facing the street on the balcony of the lowest level.
 - b. 6" x 12" with a white background and green numbers 4" in height.
 - c. Marked with the year that the fire escape was tested and approved.
 - d. Marked on the back with the building address, date tested, and specific location of the fire escape.
- B. Ongoing testing and repair requirements
1. After evaluating the fire escape as previously described in Section A, it shall be re-evaluated every 5 years as prescribed by the Portland Fire Code. Re-evaluation shall follow the procedures as previously described in Section III A, items 5, 6 and 7 of this policy.
 2. If the previous evaluation meeting these criteria was conducted by an engineer, the subsequent evaluation at 5 years may be conducted by that same engineer based on a modified assessment and new affidavit. The result of using this option is that the physical load testing is postponed to 10 years from the previous load test.
- C. Routine maintenance
1. When a fire escape shows signs of rust, paint deterioration, or requires minor repairs, such as incidental welding or the replacement of nuts and bolts, the fire inspector shall cite the owner or responsible party to make the necessary repairs. Generally, a permit is not required for minor repairs and routine maintenance. See Attachment #5 - Fire Escape Repair, Cleaning and Painting. NOTE: The Fire Marshal's Office shall be notified prior to taking the fire escapes out of service for maintenance or repairs.
- D. Other fire escape issues
1. Fire escapes found to be in a condition that constitutes a significant hazard to building occupants and/or firefighters at any time shall be cause for immediate attention. In addition to citing the owner or representative to make the repairs the fire inspector shall consider the following:
 - a. Notify their supervisor or the Senior Duty Officer.
 - b. Mark the areas in question on the fire escape with a contrasting color of paint to aid in locating the areas requiring repair. Refer to Attachment #6 for guidance.
 - c. Contact the Fire Liaison and request a fire company to come to the site to attach at least one 2-foot length of surveyor's tape, fire line tape, or something similar near the lowest rung of the firefighter's ladder and at the roof access to the fire escape.
 - d. Ensure the building occupants are notified that the fire escape is out of service. Consider signage at entry points to the fire escape and at the building entrance.

- e. A fire watch may be necessary while the building is occupied until the repairs are completed.
 - f. Send an email regarding the hazard to “Fire Liaison”, the appropriate Battalion Chief, and to the first and second arriving EOPS suppression companies. Send a follow-up email when the repairs are made.
2. In the course of their duty, fire inspectors shall insure that fire escapes are documented properly in the Inspection database; including the location on the building, last certification date and whether it is an imminent hazard.
 3. Inspectors may want to consider a stipulated agreement due to the extended time frame sometimes necessary to complete some of this work; i.e. permit process, time of year and weather conditions can impact when and how some repairs can be made. Stipulated agreements should be documented in the Inspection database Appeals & Agreements tab under “Agreements” and must include a “Due Date” along with an attached electronic copy of the agreement.

E. Fire escape access

1. Exterior fire escapes are commonly accessed via doors/windows at the end of a corridor or via a tenant space/apartment unit. Exit access requirements limit the number and types of locks/locking devices, the size of the opening, size and type of breakable glass, the presence of tools for breaking the glass, and signage for locating the fire escape.
 - a. Visual inspection is required to determine that all landings are accessible from inside the building and provided with proper signage. Egress from the building shall be available from a clear opening having a minimum dimension of not less than that required by the code under which it was built. Such opening shall be operable from the interior of the building without the use of a key or special knowledge or effort. The sill of an opening giving access shall not be more than 30 inches above the floor of the building or balcony.
 - b. Locks: The final access opening to a fire escape is limited to a single locking device that can be operated without a key or special knowledge. Generally, this is a simple window latch located where it can be easily seen and reached. Additional storm windows and screens shall be as approved by the district fire inspector. Doors at the end of a hallway may have a simple passage handle or a thumb-turn lock.
 - c. Access Doors: Doors to businesses or apartments most often have a single breakable glass panel mounted near the door handle/thumb-turn lock. The glass shall be marked ‘In Case of Emergency Break Glass’ with lettering that is a minimum of 1.5 inches tall and of a contrasting color. There must be an appropriate tool suitable for breaking the glass hanging next to the door. The minimum size breakable glass panel is 6” diameter (or 6” x 6” square). Original State Law specified that the glass was to be single-strength in order to facilitate breaking. If other glass is used, the Fire Marshal may order a field test to prove

the breakability. The only locking device allowed on these doors is one thumb-turn lock positioned near the passage set.

- d. Break glass: consider the fact that tempered glass was not invented when the State law was written. Regular glass is no longer allowed close to a door handle under current building code because of the possibility of injury from broken shards. Single thickness tempered glass may be the best alternative, but only if a break glass tool is available, and the pane is large enough that there is confidence the tempered glass will break with little effort.

F. Signage

1. In addition to the marking of the glass on an access door, fire escape access points are to be provided with a sign "FIRE ESCAPE" to be visible on approach. These signs have been installed as paper/plastic/metal signs with external illumination, older style glass light fixtures (green or red) with FIRE ESCAPE painted on them, or newer internally illuminated signs indicating either FIRE ESCAPE or EXIT. Modifications or upgrades to existing signage may be ordered by the Fire Marshal or required as part of permitted work through the Bureau of Development Services.

H. Requests for removal of counterbalance stairs

1. Requests for removal may be granted by the Fire Marshal when the counterbalance stair can be used by unauthorized persons to enter the building. Consider/suggest the option of adding a release mechanism that will secure the counterbalance stair in the raised position until needed. To approve removal, the Fire Marshal will judge all the following in the affirmative:
 - a. Is an automatic sprinkler system installed (minimum coverage = exit way plus at least one head in each room)?
 - b. Are smoke detectors provided throughout all corridors?
 - c. Is the existing fire escape structurally sound and adequately maintained?
 - d. Can a 22' extension ladder be used to access the lowest fire escape platform?
 - e. Are all previous appeals and agreements between the city and the building being maintained (Chapter 13, FM 68, FM 41)?
 - f. Is the central stair tower enclosed?
2. All requests for removal of counterbalance stairs shall be handled as an appeal item which includes payment of the fee specified in the Fire Regulations Fee Schedule – FIR 12.01.
3. Requests for removal shall include floor plan(s) of the building which specifically details all stair towers, interior corridors, fire escape locations and location of counterbalance stairs to be removed.
4. If the counterbalance stair is removed, the hole in the platform shall be filled with a permanent grate or other material to meet minimum requirements as stated in Attachment #1.

5. Staff shall report to the Fire Marshal, with the answers to the above policy questions and a recommendation for or against removal.
6. The Fire Marshal shall accept, accept with conditions, or reject the request.
7. If the request is granted, removal shall be completed under benefit of permit through the Bureau of Development Services.

I. Requests for removal of existing fire escapes

1. Request for removal shall be completed under benefit of permit through the Bureau of Development Services. NOTE: In addition to the standpipe requirements, the number and arrangement of exits shall comply with the current Oregon Structural Specialty Code. An alternative to a code compliant exiting system may be granted through a building code appeal.
 - a. The application shall include the following:
 - **Plot Plan** showing the building in relation to adjacent property lines and fire escape location(s).
 - **Floor Plans** showing the exit layout on each floor in relation to the fire escape(s) being reviewed, location of interior standpipes, and location of the Fire Department Connection.
 - **Fire and Life Safety Summary** identifying the building’s construction type, fire rating of the exiting system and types of fire protection equipment within the building.



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Portland Fire & Rescue

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Effective Date:	February 12, 2008
Reviewed By:	A. Jackson
Review Date:	April 30, 2020
Revised By:	D. Harrison
Revision Date:	April 30, 2020

Attachments:

- #1 Fire Escape Performance Criteria
- #2 Fire Escape Evaluation Using In-Situ Testing
- #3 Fire Escape Evaluation Using Structural Analysis and Limited Testing
- #4 Fire Escape and Fire Balcony Affidavit
- #5 Fire Escape Repair, Cleaning and Painting
- #6 Fire Escape Visual Inspection Check Sheet for Fire Inspector Use Only
- #7 Engineer’s Guide to Inspecting Fire Escapes

Fire Escape Performance Criteria

Fire escapes shall comply with the following standards:

1. Fire escape stairways and their landings shall support their dead load plus a live load of not less than 100 pounds per square foot or concentrated load of 300 pounds placed anywhere on the landing, balcony or stairway so as to produce the maximum stress.
2. All stairway and balcony railings shall support a horizontally applied force of not less than 50 pounds per lineal foot of railing applied at top of railing, or a concentrated load of 200 pounds placed anywhere on the railing so as to produce the maximum stress.
3. Firefighter's ladders shall be designed and connected to the building to withstand a minimum horizontal force of 200 pounds concentrated load or 50 pounds per lineal foot horizontal load so as to produce the maximum stress. Each rung shall support a concentrated load of 500 pounds placed anywhere on the rung so as to produce the maximum stress. Ladder assemblies shall have a minimum vertical load capacity of 100 pounds per lineal foot for each foot of width. New firefighter's ladders shall have a minimum width of 16 inches measured from inside rail to inside rail.
4. All loads noted above are unfactored loads.

Modifications to these loads shall be appealed through the Bureau of Development Services (BDS) as part of the permit process.

Fire Escape Evaluation Using In-Situ Testing

Before a test is conducted the structural components and connections of the fire escape should be visually inspected.

- The entire fire escape shall be checked for rust, damage and unauthorized modifications.
- Handrails must be physically checked for integrity.
- All welds, rivets, bolts, grates, hangars, framework, etc. must be inspected.
- Faulty welds, loose bolts, grates, rivets, and framework should be tightened, repaired, or replaced as necessary.
- The ladder must be checked for unauthorized modification.
- All safety chains shall be in good repair.
- The counterbalanced stair or ladder release mechanism must be checked **twice** for proper operation. The stair or ladder must travel to the ground without hesitation and it must be stable and firm in its position after reaching the ground or sidewalk.

If visual inspection determines that structural repairs are required, that work must be completed before commencement of testing.

In-situ load testing shall be conducted as outlined below:

A test procedure shall be developed by a registered design professional. A stamped copy of the test procedure shall be submitted along with a fee to the Bureau of Development Services (BDS), Development Services Center (DSC) for approval before any testing is carried out. The test protocol shall:

- a. Simulate the applicable loading and deformation conditions as necessary to address the concerns regarding structural stability of the structure.
- b. The test load shall be equal to two times the unfactored design loads (see Attachment #1). The test loads shall be left in place for one hour.
- c. Test loads may be applied to the entire structure at one time. If however, each landing is to be tested separately, then components such as standpipes, ladders etc. connecting the landings must be disconnected so that load sharing does not occur.

Testing shall be supervised by a registered design professional.

The structure shall be considered to have successfully met the test requirements where the following criteria are satisfied:

1. Within one hour after removal of the test load, the structure shall have recovered not less than 75 percent of the maximum deflection.
2. During and immediately after the test, the structure shall not show evidence of failure.

At the completion of the testing and/or repair, the engineer of record shall submit to the building inspector a letter of structural observations stating the testing was completed in accordance with the approved testing plan and the fire escape passed the test in accordance with the criterion established in the plan which is based on FMO policy document FIR 2.08. The building inspector shall not final the permit until such a letter from the engineer of record is received. In addition, the owner and the engineer of record shall submit the completed “Fire Escape and Fire Balcony” affidavit (Attachment #4) to the Fire Marshal’s office as required in FMO policy document FIR 2.08.

Fire Escape Evaluation Using Structural Analysis and Limited Testing

The fire escape shall first be visually inspected by a registered design professional and the following shall be completed:

- The entire fire escape shall be checked for rust, damage and unauthorized modifications.
- Handrails must be physically checked for integrity.
- All welds, rivets, bolts, grates, hangars, framework, etc. must be inspected.
- Faulty welds, loose bolts, grates, rivets, and framework should be tightened, repaired, or replaced as necessary.
- The ladder must be checked for unauthorized modification.
- All safety chains shall be in good repair.

The counterbalanced stair or ladder release mechanism must be checked **twice** for proper operation. The stair or ladder must travel to the ground without hesitation and it must be stable and firm in its position after reaching the ground or sidewalk.

A complete structural analysis of all the elements and connections shall be completed for each fire escape on the building. The analysis shall be done by a registered design professional. The analysis shall be based on the design criteria in Attachment #1. Fire escapes and parts thereof shall be analyzed in accordance with the provisions of the Oregon Structural Specialty Code. The structural analysis shall be based on actual material properties and other as-built conditions.

In addition to the structural analysis, limited testing shall be conducted to determine the adequacy of the anchorage of the fire escape to the building structure or for any connection that cannot be analyzed due to the connection being hidden from view. Unless agreed to by the Bureau of Development Services (BDS) upon recommendation from the design professional performing the analysis, testing of anchorage for the fire escape to concrete or reinforced or unreinforced masonry structure is required to determine the capacity of the anchors.

Testing is not required when all anchors are being replaced and shown by analysis to meet the requirements of the Oregon Structural Specialty Code. The new anchors shall be designed to resist all loads imposed on the connection by the fire escape.

Testing Requirements:

1. Testing shall be conducted by a qualified testing agency under the supervision of the registered design professional.
2. The anchors shall be tested to two times the unfactored design loads. See Attachment #1 for minimum design loads. Modifications to these loads shall be appealed through the Bureau of Development Services (BDS) as part of the permit process.
3. The anchors shall be tested for all loads imposed on the anchor (shear and tension). Test loads shall be left in place for one hour.
4. The registered design professional shall prepare and submit a plan for testing of the anchors. This testing plan shall be submitted to the Bureau of Development Services (BDS), Development Services Center (DSC) for approval prior to being carried out.

5. A minimum of 20% of the anchors shall be tested.
6. The anchors shall be considered to have successfully met the test requirements if 90% or more of the tested anchors pass the test and 100% of the anchors have a capacity of at-least 150% of the unfactored design loads. If this is not the case another 20% of the anchors shall be tested. The tests shall be repeated until the anchors meet the criteria defined above.
7. All failed anchors shall be retrofitted and the new anchors shall carry the entire load imposed by the fire escape. There shall be no load sharing between existing and new anchors in a connection.

At the conclusion of the evaluation and testing of the fire escape, the following shall be completed:

1. A report prepared and stamped by a design professional that includes but is not limited to drawings, calculations and test results shall be submitted to the Bureau of Development Services (BDS), Development Services Center (DSC) for approval.
2. The engineer of record shall submit to the building inspector a letter of structural observations stating the testing was completed in accordance with the approved testing plan and the fire escape passed the test in accordance with the criterion established in the plan which is based on FMO policy document FIR 2.08.
3. The owner and the engineer of record shall submit the completed "Fire Escape and Fire Balcony" affidavit (Attachment #4) to the Fire Marshal's Office as required in FMO policy document FIR 2.08.

FIRE ESCAPE AND FIRE BALCONY AFFIDAVIT

Email the completed affidavit to firemarshal@portlandoregon.gov



Mailing Address

Portland Fire & Rescue
1300 SE Gideon Street
Portland OR 97202

Date Testing Completed: _____

To: Fire Marshal, Fire Prevention Division

I certify that the exterior fire escapes, bridge, steel, concrete, or wooden stairways, or egress balcony(s) connected to the building have been inspected and evaluated as required by Portland Fire & Rescue Policy, FIR-2.08 Fire Escape Issues.

Building Information

Site Address: _____

Property Owner: _____

Owner Address: _____

Location of Fire Escape(s) on Building: _____
(describe each as "North", "South/East", "South/West", etc)

To the best of my knowledge, information and belief, this egress component is in conformity with the provisions of the Oregon Revised Statutes, Oregon Structural Specialty Code, and Portland Fire & Rescue Policy, FIR-2.08 Fire Escape Issues.

Certification is required every five (5) years by a registered design professional or other qualified testing agency acceptable to the Fire Marshal and under the direction of a registered design professional. Are you using III. B. 2 in lieu of a load test? Yes No

Testing Agency: _____ License # _____

Registered Design Professional: _____ License # _____

Address: _____

If using a stamp, place here

FIRE ESCAPE REPAIR, CLEANING AND PAINTING

The following information specifies the methods to be used in correcting deficiencies that have been noted on your fire escape(s). These repairs must be completed as soon as practical to ensure the continued safe use of these exiting systems. Cleaning and painting may be delayed upon written request. The following is provided by this office to assist you in expediting the repairs, cleaning and painting:

REPAIRS

- A permit from the Bureau of Development Services (BDS) shall be required for replacing structural components (knee bracing and connections to the building), replacing major sections of the fire escape (a flight of stairs, a length of the firefighter's ladder, a section of railing, a section of a platform) or when a significant amount of welding occurs. All repair work shall be done under the supervision of a registered design professional.
- A permit is not required for minor repairs, such as removing paint and rust, replacing bolts, nuts, rivets, incidental welding, like for like replacement of a minimal number of steel components that are not major load bearing elements (floor slats, stair treads, railing pieces). Minor repairs shall be addressed in the following ways:
 - a) **BOLTS/NUTS:** If used in the replacement of existing or missing nuts/bolts/rivets, they shall be stainless steel, minimum 3/8" diameter and of appropriate length. These specifications ensure the strength and resistance to rust for years to come.
 - b) **WELDING:** Rigid joining of fire escape components is not recommended. When used, welding on fire escapes shall be completed by a person holding a current American Welding Society (AWS) certification for the type of welding that is being done.

CLEANING the fire escape(s) prior to painting is an extremely important step. Studies show that paint applied to a surface prepared using hand tools (scrapers, grinders, wire wheels, etc.) will survive for approximately 2 years, while the same paint applied following preparation by sandblasting will last about 10 years. This office may require sandblasting prior to painting. NOTE: Precautions shall be taken when working with lead based paint and may require separate permits through other agencies (DEQ, EPA, etc.).

PAINTING your fire escape(s) preserves the integrity of the joining systems. Paint may be applied using brush, roller, or spray and shall be applied to all surfaces. Caulking all metal to metal contacts prior to painting should be considered and is preferred.

Paint coatings shall be one of the following:

- One (1) coat of **iron oxide primer**, followed by one (1) coat of **alkyd enamel finish** (or)
- One (1) coat of a single coat paint such as "**Hammerite**" brand paint, **Amershield Polyester-Acrylic Aliphatic Polyurethane** or **Val-Chem Epoxy Mastic 75-W-9W (or)**
- Alternative coatings of paints equivalent to "B" upon approval by this office.

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**FIRE ESCAPE VISUAL INSPECTION CHECK SHEET
FOR FIRE INSPECTOR USE ONLY**

Contact a Senior Inspector ASAP for consultation if any of the **BOLD** inspection points are checked.

From the ground		Yes	No
1	Do you see any obviously broken steps, railings, or supports?		
2	There should be two “U” bolts attaching the deck to each of the main supports. Are any of these missing or broken?		
3	Is the firefighter’s ladder, or any portion of it, missing?		
4	The firefighter’s ladder should be straight, attached at the balcony decks and balcony handrails, and the overlapping joints should be tight. Are there any visible abnormalities related to the firefighter’s ladder?		
	a. Does it appear to be missing any parts? (valves, handles, caps, balcony supports)		
	b. Are any FDC caps or plugs missing?		
	c. Do the FDC swivels resist turning easily? (you may need to loosen plugs)		
6	Are there any items sitting on or hanging from the fire escape?		
7	Is the paint broken or peeling?		
8	Is there visible rust or corrosion to any structural members of the fire escape?		
From the Fire Escape Access Points		Yes	No
9	Is occupant access to the fire escape difficult to find? (lack of signs, poor lighting)		
10	Do the access doors or windows have more than one latching device? (single latch, no key or special knowledge)		
11	Are the access doors or windows difficult to open or fail to remain open on their own?		
12	Does the fire escape appear to be unsafe to step onto?		
From the Fire Escape (consider starting at the top and working down)		Yes	No
13	Are any connections for the firefighter’s ladder broken, rusted, or missing?		
14	Is the firefighter’s ladder loose or wobbly where it goes to the roof? (bolts, anchors, mortar missing)		
15	Is the standpipe missing parts or showing signs of damage?		
16	Is the balcony missing any parts or showing rust/corrosion? (rotted handrail supports, broken or missing bolts or rivets, missing mortar)		
17	Are there broken or missing steps or handrails going to the next balcony?		
18	Is there significant rust or corrosion on any of the balcony, stairway, standpipe, counterbalance stair, or firefighter’s ladder?		
19	Does the counterbalance stair fail to deploy, difficult to move, or overly quick to move?		
20	Is the counterbalance stair counterweight in disrepair or showing significant rust or corrosion? (plates spreading apart, broken bolts, additional pieces attached)		
21	Is the counterbalance stair missing the check-chain and spring?		
22	Is there an open hole in the lower balcony deck? (Remnant from previous stair?)		

F:FMO Reference/FMO Forms/Fire Escape Visual Inspection Check Sheet 9-27-16.doc

ENGINEER'S GUIDE TO INSPECTING FIRE ESCAPES

1. Safety of yourself, your workers, building occupants, and the public should be paramount.
2. Review this policy in detail.
3. Conduct a visual evaluation of the structure for obvious corrections that are needed.
4. Develop a plan for the in-situ testing, structural analysis and limited testing, or confidence testing as described in this policy. Include alternate means of egress during time the fire escape is not available.
5. Submit testing plan to the Bureau of Development Services (BDS) and secure a permit.
6. Make needed repairs prior to load testing.
7. Record all appropriate measurements, conduct load testing, and complete post-load measurements.
8. Plan and conduct any repairs identified.
9. Standpipes and their related supports and attachments to the fire escape shall be evaluated. Significant rust, corrosion, or failure of components shall be reported to the Fire Marshal's Office immediately.
10. Verify the surface preparation, caulking and painting are done as specified. Precautions shall be taken when working with lead based paint and may require separate permits.
11. Complete necessary reports for BDS and affidavit for the Fire Marshal's Office.
12. File the reports and affidavit as required.
13. Request the Final inspection.

Once the permit has been finalized and entered in the BDS TRACS system, the Fire Marshal's Office will conduct a visual review of the fire escape and post a sign indicating the year the fire escape was tested. Any further corrections noted will be cited to the building management for completion.