



# ELEVATORS: DOOR MONITORING & OTHER RETROACTIVE REQUIREMENTS

presented by

*Charanjeet Singh, P.E. & Donald Franklin*

**BUILD SAFE | LIVE SAFE**  
**CONFERENCE 2019**



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# DESCRIPTION

This presentation will provide an overview of NYCBC Appendix K, Chapter K3 which outlines retroactive requirements for existing elevators including door lock monitoring. ANSI A10.4 will be discussed informing attendees about requirements for adding extensions to personnel hoists. Additionally attendees will learn about various safety issues arising from maintaining and working on conveying devices.

# LEARNING OBJECTIVES

**At the end of this presentation, you will be able to:**

1. Participants will examine NYCBC Appendix K Chapter K3 to identify retroactive requirements for existing elevators including door lock monitoring requirements.
2. Participants will discuss ANSI A10.4 and be able to summarize requirements for Personnel Hoist cab extensions.
3. Participants will be able to list requirements for load weighing devices on passenger and freight elevators.
4. Participants will analyze common causes of minor elevator/escalator accidents and remedies.

# OVERVIEW: ELEVATORS IN NEW YORK CITY

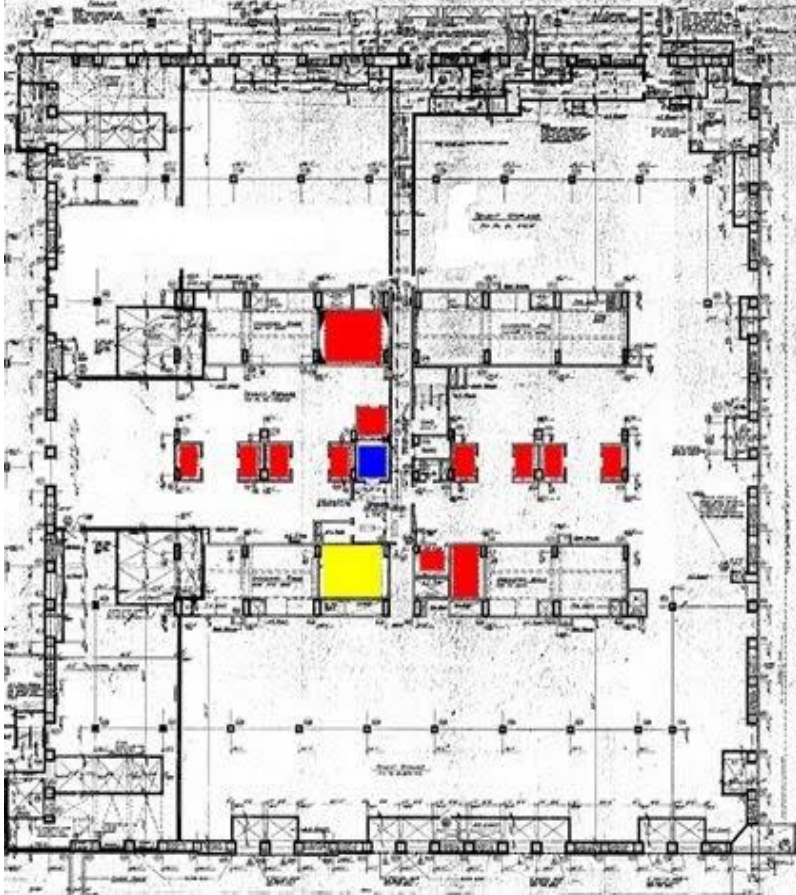


37 million trips based  
on number of  
passenger elevators  
in the City



# OVERVIEW:

## ELEVATORS IN NEW YORK CITY

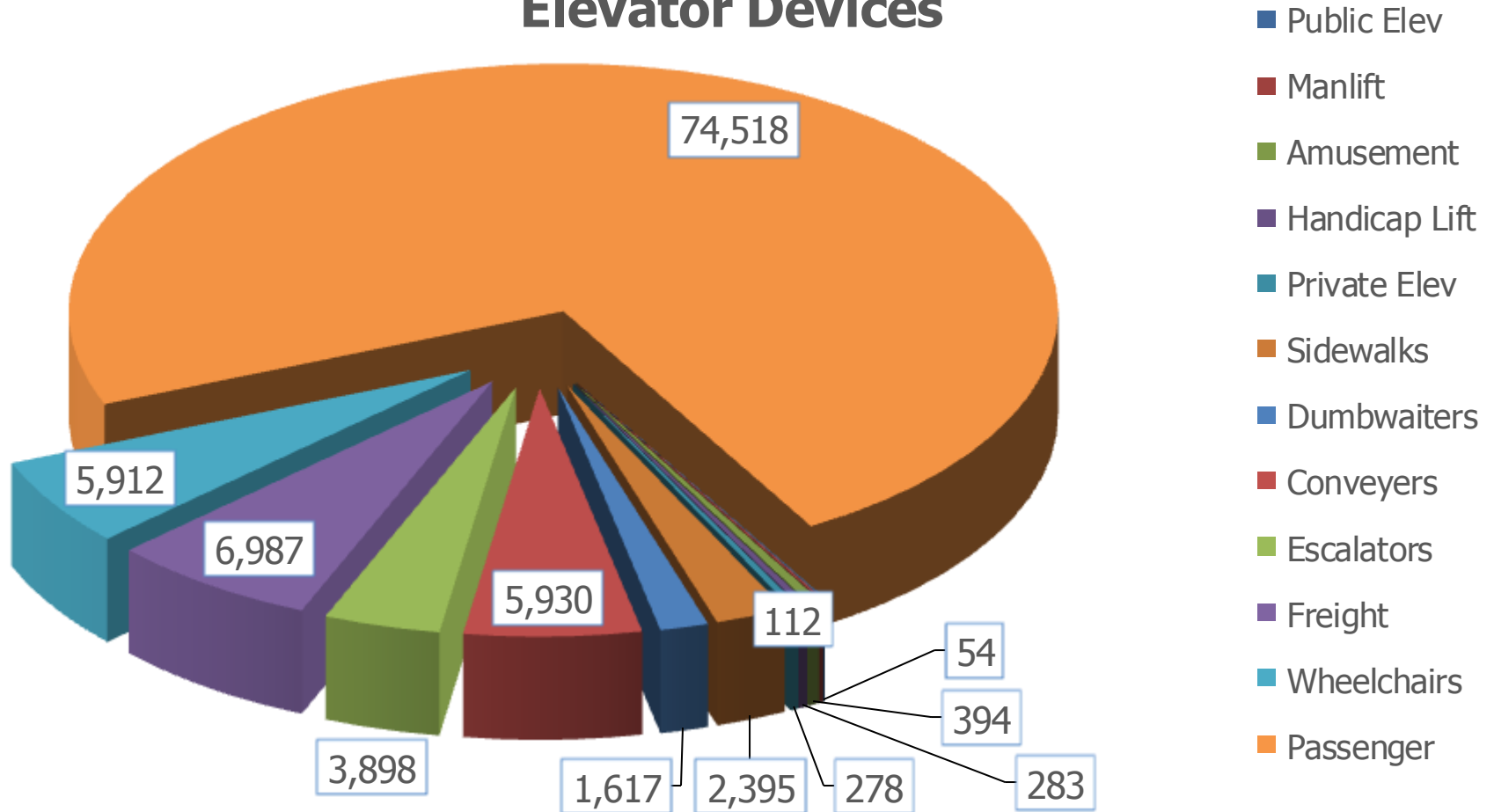


### Approximately

- **150** years of elevator history (since 1857)
- **90K** devices under the DOB's Jurisdiction
- **500** average daily elevator trips
- **37 million** daily citywide trips
- **12%** of all elevators in NYC

# TYPES OF DEVICES

## Elevator Devices



# FUNCTIONS OF THE ELEVATOR UNIT





# ELEVATOR REFERENCE CODES

Code	Description
<i>IBC 2009 as modified by NYC Building Code 2014 - Elevators &amp; Conveying Systems Ch. 30</i>	
ICC/ANSI A117.1 – 2009	Accessible and usable buildings and facilities
ASME A17.1/2000 with supplements A17.1a – 02 and A17.1b – 03	Safety code for Elevators and Escalators as modified by NYC Building Code Appendix K; Chapter K1
ASME A17.1s – 2005	Supplement to Safety Code for Elevator and Escalator for Machine Room Less (MRL) elevators as modified by Appendix K; Chapter K4
ASME A17.2 – 2002	Guide for Inspection of Elevators, Escalators and Moving Walk
ASME A17.3 – 2002	Safety Code For Existing Elevators and Escalators as modified by Appendix K; Chapter K3
ASME A17.5 – 2004	Elevator and escalator electrical equipment
ASME A17.6 – 2010	Standard for Elevator Suspension, Compensation, and Governor Systems as modified by Appendix K; Chapter K4
ANSI A10.4 – 1981	Personnel Hoists and Employee Elevators on Construction and Demolition Sites
ANSI A10.4 – 2007*	*Device Operator requirements only
ASME A18.1 – 2005	Safety Standard for Platform Lifts and Stairway Chairlifts
B20.1 – 2006	Safety Standard for Conveyors and Related Equipment

\*\*\*Amusement Ride Rules and Standards not listed\*\*\*

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# CODE COMMITTEES

## AFFILIATION/REPRESENTATION

NEII - National Elevator Industry, Inc.

NYCHA – New York City Housing Authority

REBNY - Real Estate Board of New York

ECNY – Elevator Conference of NY

Port Authority of NY & NJ

EMANY – Elevator Manufacturers Association of NY

FDNY - New York City Fire Department

ASME - Code Committee Member

BOMA – Buildings Owners and Managers Association of NY

Local Union – 1, 3

NYC - DOB – New York City Department of Buildings

NAEC - National Association of Elevator Contractors

DCAS - Department of Citywide Administrative Services

- NYC Elevator Code Committee consist of elevator stakeholder groups, organizations, associations and government agencies.
- Committee reviews each section of the Code and standards and makes decisions to enhance the safe and reliable service for our riders.
- Committee uses consensus-based process.

# ELEVATOR SAFETY

The Public

Elevator Personnel

Authorized Personnel

Emergency  
Responders



# DOOR LOCK MONITORING



3.10.12 System to monitor and prevent automatic operation of passenger and freight elevators with faulty door contact circuits

# DOOR LOCK MONITORING

- All automatic passenger and freight elevators must comply.
- Compliance date: January 1, 2020.
- A permit is always required.

# DOOR LOCK MONITORING



JULY 2018

## SERVICE UPDATE

### Updated Filing Requirements: Changes to Elevator Door Monitoring System

Effective May 20, 2018, elevator door monitoring work performed per Section 3.10.12 of Chapter K3 of Appendix K of the New York City Building Code:

- The application must be filed by an Elevator Agency Director or Co-Director approved by the Department, rather than a design professional.
- Design drawings, including approval letter(s) from the controller manufacturer or registered design professional, are not required to be submitted to the Department, but must be kept in the premises' machine rooms and made available to the Department upon request.
- Tests and inspections must be performed by an approved elevator inspection agency (applicant) and witnessed by an approved elevator inspection agency not affiliated with the agency performing the test.

#### Permit Applications

Applications must still be filed with the Department in [DOB NOW: Build](#) (using the PPN process).

#### Test Notification

Elevator agency directors must notify the Department at least 48 hours prior to inspection and test by sending an email to [notification@buildings.nyc.gov](mailto:notification@buildings.nyc.gov).

#### **NEW:** Inspection/Test Report and Sign-off

Both the Elevator Agency performing the inspection and the Elevator Agency witnessing the inspection, as well as the Owner must use [DOB NOW: Build](#) to submit the inspection/test results and obtain final sign-off. (ELV3 forms will no longer be accepted in person or by email.)

Please refer to [1RCNY Section 101-02](#) and [1RCNY Section 101-07](#) for more information.

- RCNY §§ 101-02 and 101-07:
  - Applicant: Elevator Director
- Must file as a self certifiable EBN/PPN work type.
- Third party witnessing required.



# DOOR LOCK MONITORING



JULY 2018

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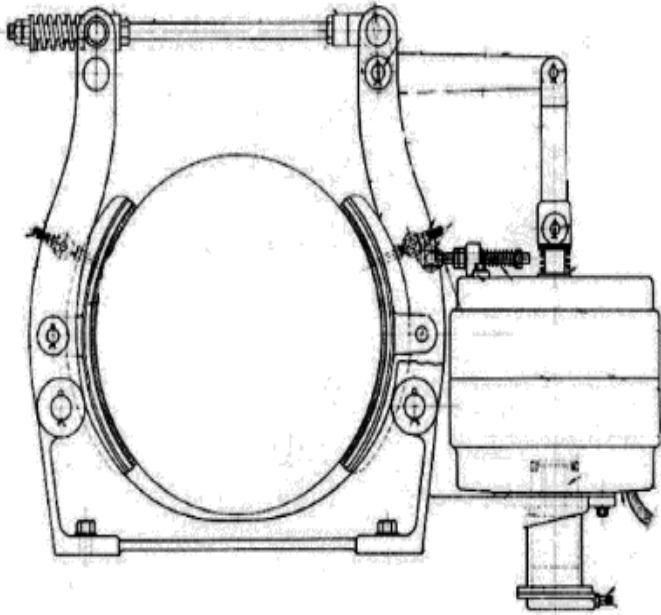
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- Design drawings and approved letters not required to be submitted.
- Must keep these documents in machine room.
- 48 Hour notice to the department.
- Sign off – DOB NOW: *Build*

# SINGLE PLUNGER BRAKES



## 3.8.4.1 Single plunger brakes.

- All existing traction elevators with single plunger brakes must comply with either of the following by January 1, 2027:
  - 1) Alteration of single plunger assemblies to dual-plunger type

or

  - 1) Compliance with Unintended Car Movement Protection as specified by Section 2.19.2 of ASME A17.1.

# CAPACITY AND LOADING

## RCNY 3610-05

*(effective date 09/28/18)*

### 2.16.10 Detection of Overload on Passenger Elevators and Freight Elevators Permitted by 2.16.4 to Carry Passengers.

- Passenger elevators and freight elevators permitted by 2.16.4 to carry passengers must be designed with the means to detect if the load exceeds the rated capacity of the elevator. If an overload is detected, the elevator doors must reopen and remain open and a voice notification and visual signal must indicate that the car is overloaded





# CAPACITY AND LOADING

**Maximum Capacity**  
**2500 lbs.**  
**15 Passengers**

- Applicable to new and altered elevators
- Capacity plate requirements

# FSAE AND OEE

**403.6 Elevators.** Elevator operation and installation shall be in accordance with Chapter 30.

- **403.6.1 Fire service access elevator.** In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, a minimum of one fire service access elevator shall be provided in accordance with Section 3007.
- **403.6.2 Occupant evacuation elevators.** Where installed in accordance with Section 3008, passenger elevators for general public use shall be permitted to be used for occupant self-evacuation.

# FIRE SERVICE ACCESS ELEVATORS (FSAE)

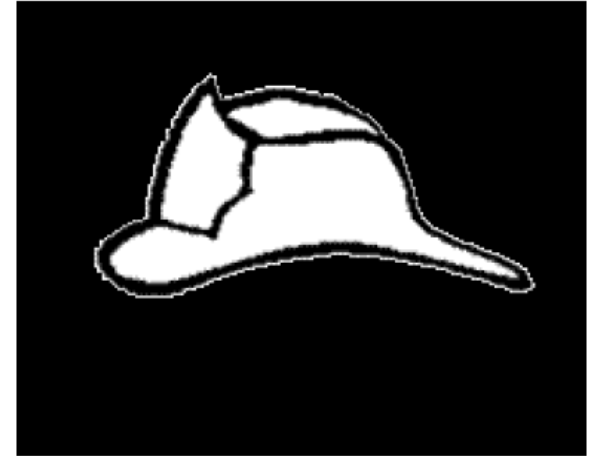
- In buildings with an occupied floor more than 120 feet above the lowest level of Fire Department vehicle access, a minimum of one fire service access elevator shall be required, which shall serve every floor of the building.
- Fire service access elevators have to comply with **BC 403.6.1** and **BC 3007**.



# FIRE SERVICE ACCESS ELEVATORS (FSAE)

## Comply with sections 3007

- Serve every floor
- Automatic sprinkler systems
- Water protection
- Fire rating of shaft
- Hoistway lighting
- Lobby requirements (120 square feet)
- Signage
- Power requirements



# OCCUPANT EVACUATION ELEVATORS (OEE)

- In buildings higher than 420 feet, designated elevators permitted to be used in case of fire.
- These special occupant self-evacuation elevators must comply with **BC 403.5.2 and BC 3008**



# OCCUPANT EVACUATION ELEVATORS (OEE)

## Section 3008.1 – 3008.11

Additional exit stairways: not required	Approved fire-safety and emergency-action plans	Emergency voice/ alarm communication system	Structural integrity of the hoistway
Operation	Sprinklers	Water Protection	Lobby requirements
Vision Panel	Signage	Two-way Communication	Power Requirements
Notification Appliance	Hazardous material areas		



# PERSONNEL HOIST CAPACITY

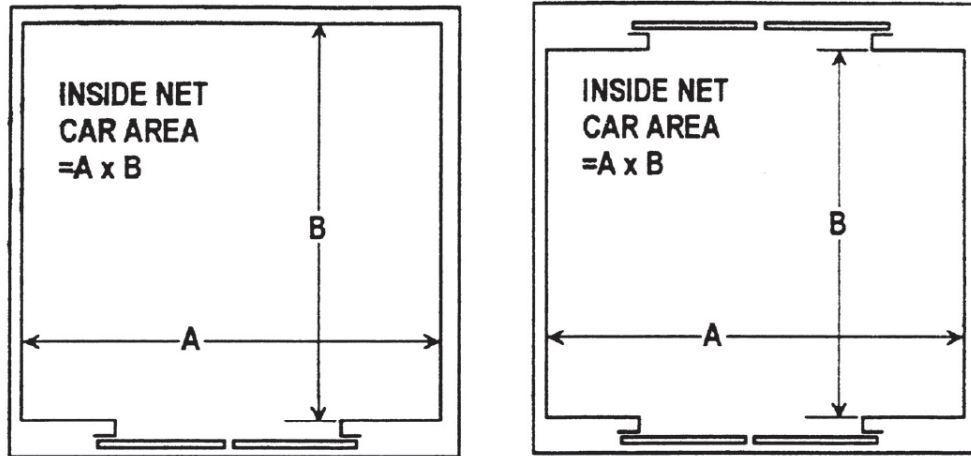


Figure 21.1 - Inside Net Platform Areas for Personnel Hoist Cars

RATED LOAD (pounds)	INSIDE NET PLATFORM AREA (square feet)
2,000	24.2
2,500	29.1
3,000	33.7
3,500	38.0
4,000	42.2
4,500	46.2
5,000	50.0
6,000	57.7
7,000	65.3
8,000	72.9
9,000	80.5
10,000	88.0

# PERSONNEL HOIST CAPACITY



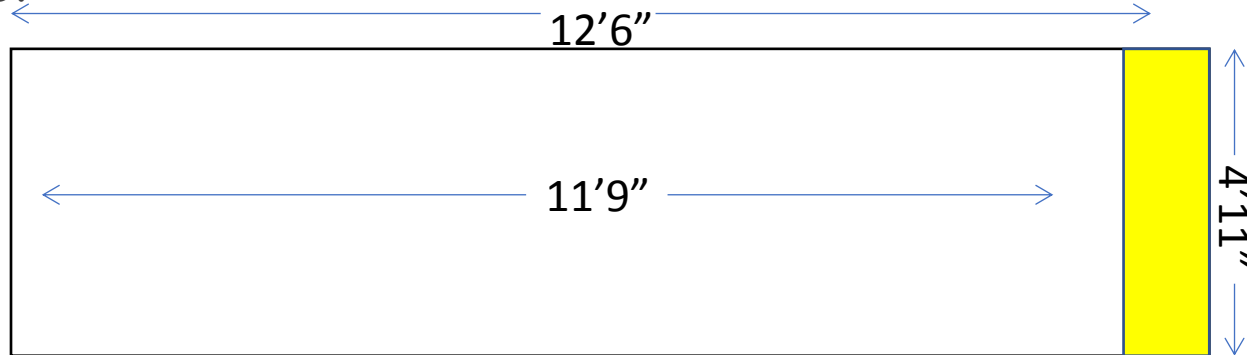
- Extensions **must** be in accordance with the manufacturer's specification
- Designed and approved by a NYS Registered Professional Engineer
- Conform with provisions of ANSI A10.4-2016 code

# PERSONNEL HOIST CAPACITY

- Overload detection device to prevent overloading of the cars.
- Rated load ratio to inside net platform area shall not be less than 82 psf
- Safeties must be capable of supporting the  $DL + RC + OL$ , where:
  - **DL** = dead load of the car
  - **RC** = Rated Capacity of the car
  - **OL** margin weight allowed by overload detection device
- No passengers except operator and handlers allowed when hoisting material
- Material properly secured
- Platform size limited by clear visible markings/sensors
- Proper capacity signage

# PERSONNEL HOIST CAPACITY

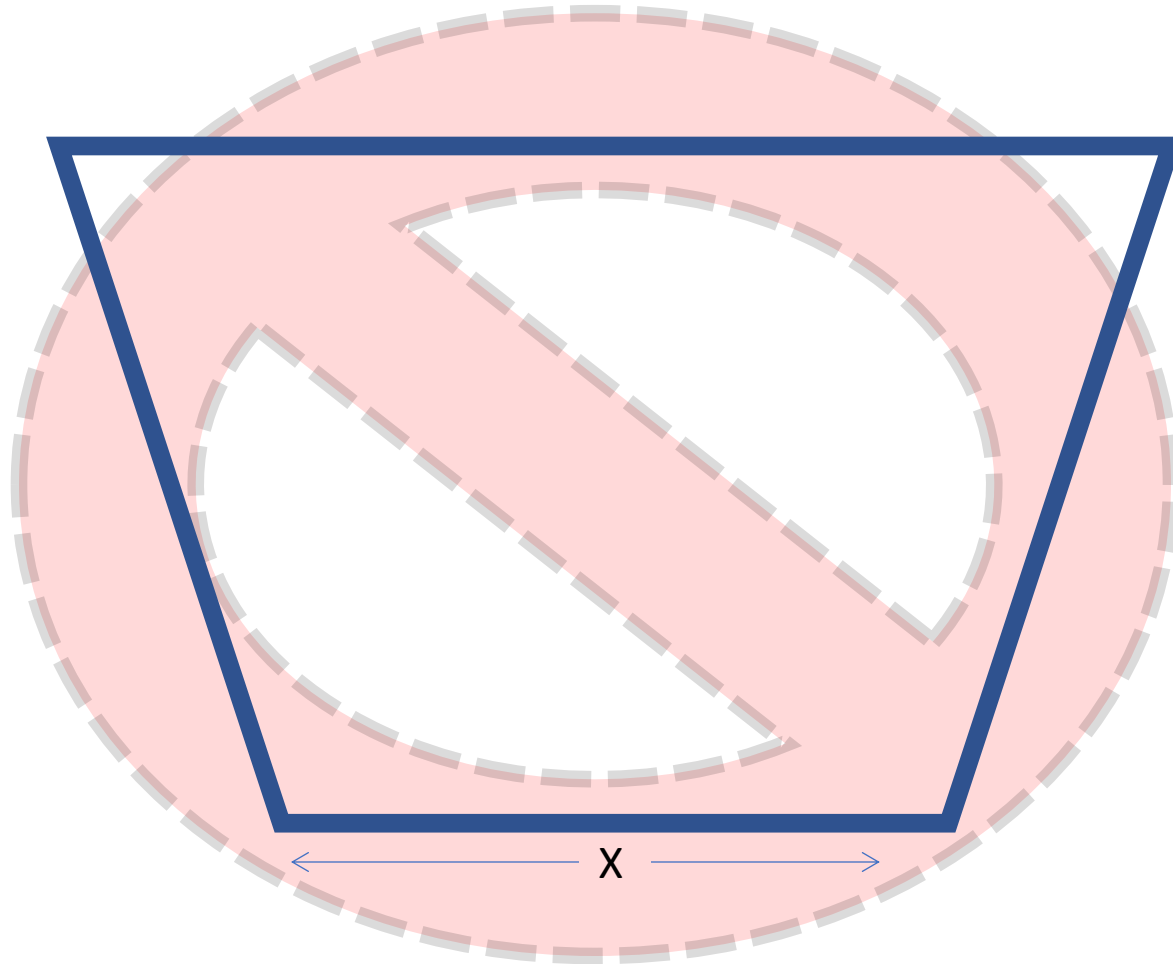
Example:



- Car Capacity: 6,000 lbs.
- Car inside dimensions: 12'6"x4'11" (w/markings 11'9"x4'11")
- Car inside area: 61.4 sq. ft. (ANSI A10.4 = 57.7 sq. ft.)
- Rated load/Net Platform: 97.6 lbs./sq. ft.
- Rated Safety Capacity: 13,488 lbs.
- Cab weight + Rated Capacity + Overload < Rated Safety Capacity  
6,670 lbs. + 6,000 lbs. + 300 lbs. = 12,970 < 13,488



# PERSONNEL HOIST CAPACITY



# **BUILDINGS FIVE STORIES OR MORE: STRETCHERS**

- **Must have at least one elevator accessible to all floors.**
- **Must have an elevator that can accommodate a stretcher**
  - 24-inch x 84-inch with not less than 5-inch radius corners
  - Standby power required.
  - Exceptions
    - Private-residence elevators
    - LULA



# BUILDINGS FIVE STORIES OR MORE: STRETCHERS

*Buildings Bulletin 2017-008 (issued July 17, 2017)*

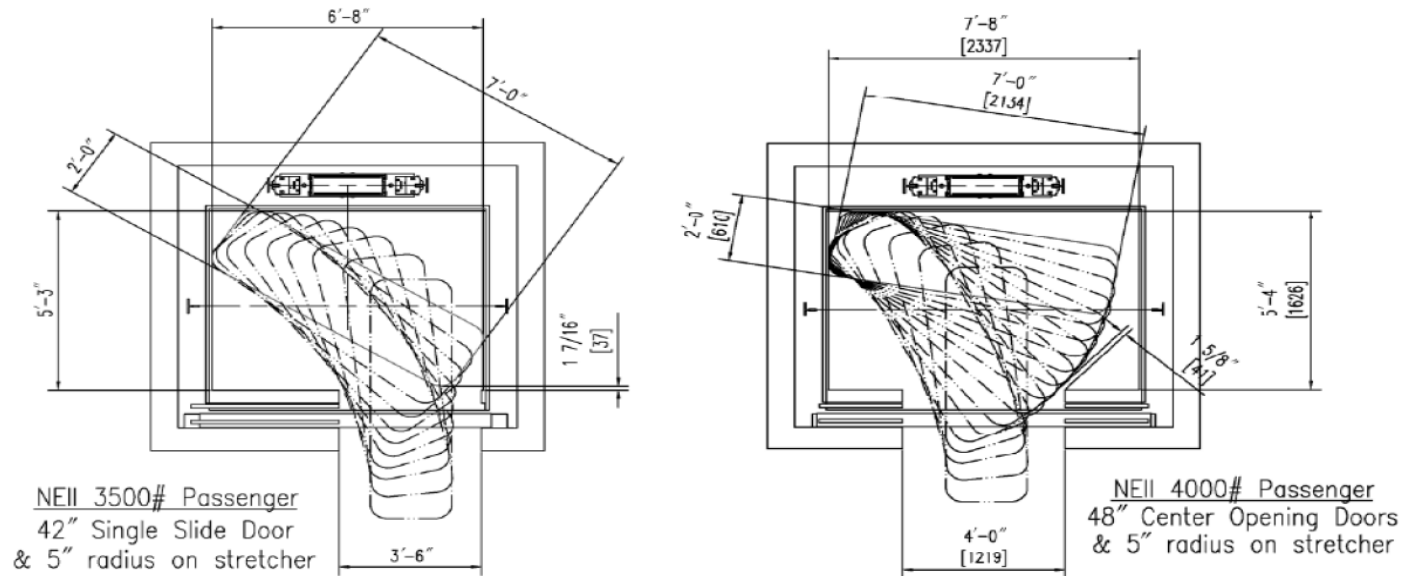


FIGURE 1

*Excerpt of FIGURES 3002.4(a) and 3002.4(b) of 2009 IBC Commentary  
Stretcher-sized elevator cars*

# **PASSENGER ELEVATORS: PRIVATE RESIDENCES**

- Must fully comply with either part 2 or part 3 of ASME A17.1.
- Must comply with the ANSI A117.1 for platform size requirements of a passenger elevator.
- Must comply with emergency operation and signaling devices: provide Firefighter's Emergency Operation Phase 1 and Phase 2.



# ELEVATOR CONSTRUCTION CODE DETERMINATIONS (CCD1)



JULY 2017

## SERVICE UPDATE

### Elevator Construction Code Determinations

Effective August 1 2017, Elevator Determinations will follow the same process as regular borough determinations. As such, the Department has updated the CCD1 form and created a dedicated email address for elevator Construction Code determinations and variances.

Applicants **must** send all elevator Code determination and variation requests using the revised CCD1 form to [elevdeterminations@buildings.nyc.gov](mailto:elevdeterminations@buildings.nyc.gov).

The revised CCD1 form and instructions can be accessed at:

- Form - <http://www1.nyc.gov/assets/buildings/pdf/ccd1.pdf>
- Instructions - [http://www1.nyc.gov/assets/buildings/pdf/zrd1ccd1\\_instr.pdf](http://www1.nyc.gov/assets/buildings/pdf/zrd1ccd1_instr.pdf)

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# ELEVATOR CONSTRUCTION CODE DETERMINATIONS (CCD1)

## Required Construction Code Determinations fees



JANUARY 2018

### SERVICE UPDATE

#### Review Fees for Construction Codes Determinations and Zoning Resolution Determinations

Effective January 28, 2018, Construction Codes Determination (CCD1) requests and Zoning Resolution Determination (ZRD1) requests submitted to the Department for review are subject to the following fees per §28-112.2 of the NYC Administrative Code, and the Rules of the Department [1RCNY 101-03](#).

#### FEES

- CCD1 or ZRD1 request for Determination..... \$1,000
  - Pre-Determination (pre-filed job) Request
  - Request for variation of a Code requirement or MDL section 277.16
  - Appeal of an affirmation of an objection after a second plan examination review
- Appeal of CCD1 or ZRD1 Determination..... \$2,500

A request for review of plan examination objections **must** go through a second plan examination review (requires an AI-1 form) first, which is included in the filing fee and is not subject to additional review fees. All submissions **must** include a copy of the invoice from the Borough Office where the fee was paid, except properties that are exempt from fees per §28-112.1 and this rule.

#### CONSTRUCTION CODES DETERMINATION FORM (CCD1)

This form will be used to request a determination for all non-zoning related issues for a filed job or a pre-filed job from the Department, including requests for variation of applicable Code or Multiple Dwelling Law provision and for appeals of such determinations. [CCD1 Form - Rev. 1/18](#)

#### ZONING RESOLUTION DETERMINATION FORM (ZRD1)

This form will be used to request a zoning determination for a filed job or a pre-filed job from the Department and for appeals of such zoning determinations. [ZRD1 Form – Rev.1/18](#)

#### SUBMISSIONS

Only one determination or appeal request may be submitted on each form

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# DOB NOW UPDATE

**DOB NOW elevator permit expiration dates are now automatically extended up to one year as long as the licensee's insurances and license do not lapse.**

Permits issued in DOB NOW have an expiration date that is the earliest of:

- insurances expiration (general liability, disability, or workers' compensation);
- license expiration;
- one year from date of issuance.

# ENFORCEMENT

- ECB Violations
- PVT/DOB Violations
- Aggravated I and II
- Criminal Court summons (under major offenders program)
- Work-Without Permit Violation



# ELEVATOR MAINTENANCE & REPAIR

- Maintenance Control Program
- Maintenance Log
- Repair

# **MAINTENANCE AND REPAIR: CONTRACT**

## **NYC Administrative Code 28-304.7 – Required Contract**

- Owner of New and existing passenger elevators shall have contract with an approved agency to perform elevator repair work and maintenance as defined by ASME A 17.1 – Section 8.6.
- The name, address and telephone number of approved agency under contract shall be maintained at each premises, on the elevator mainline disconnect switch and in a location readily accessible to employees of the department, building maintenance and custodian staff at the premises.

# **MAINTENANCE, REPAIRS & REPLACEMENT**

**Shall confirm following code requirements:**

- Code at the time of the installation
- Code requirements at the time of any alteration/modernization
- ASME A 17.3-2002 as modified by NYC Building Code Appendix K
- ASME A 17.1b-2003, Section 8.6

# MAINTENANCE CONTROL PROGRAM

**Maintenance Control Program (MCP) shall be in compliance with ASME A 17.1b-2003 Section 8.6.1.2:**

- Examination, maintenance and tests at schedule interval
- Equipment age, condition, and accumulated wear
- Design and inherent quality of the equipment
- Usage, Environmental condition



# MAINTENANCE CONTROL PROGRAM

*(continued)*

- Improved technology
- Cleaning, lubricating and adjusting applicable components at regular intervals
- Repair or replace all worn or defective component where necessary to maintain installation as per codes and manufacturer requirements
- Available at site to elevator personnel; and
- As required by manufacturer manual

# MAINTENANCE RECORDS

Maintenance records shall be in compliance with ASME A 17.1b-2003 Section 8.6.1.4:

- Description of maintenance task performed and dates
- Description and dates of examinations, tests, adjustments, repairs and replacements
- Description and dates of call backs (trouble calls), including corrective action taken
- Written record of the findings on the firefighter service; **and**
- Available at the site for elevator personal

# ADVANTAGES OF MAINTENANCE: PER MCP

- Enhance safety
- Improve service reliability
- Increase life span of equipment
- Enhance efficiency of vertical system transportation
- Avoid costly repairs
- Avoid violations and penalties

# ELEVATOR SAFETY

- **Worker Safety** – OSHA safety regulation
- **Fall Protection** – Personal fall-arrest system, guardrail system, barricades
- **Electrical Safety** – Personal protective equipment, safety checklist
- **Proper Use of Jumpers** – Use extreme caution; only use on inspection and ensure jumpers removed before placing equipment back in service
- **Lockout and Tag out**
- **Use of Caution Tape When Elevators are Serviced** – NYC Building Code Section BC-3009



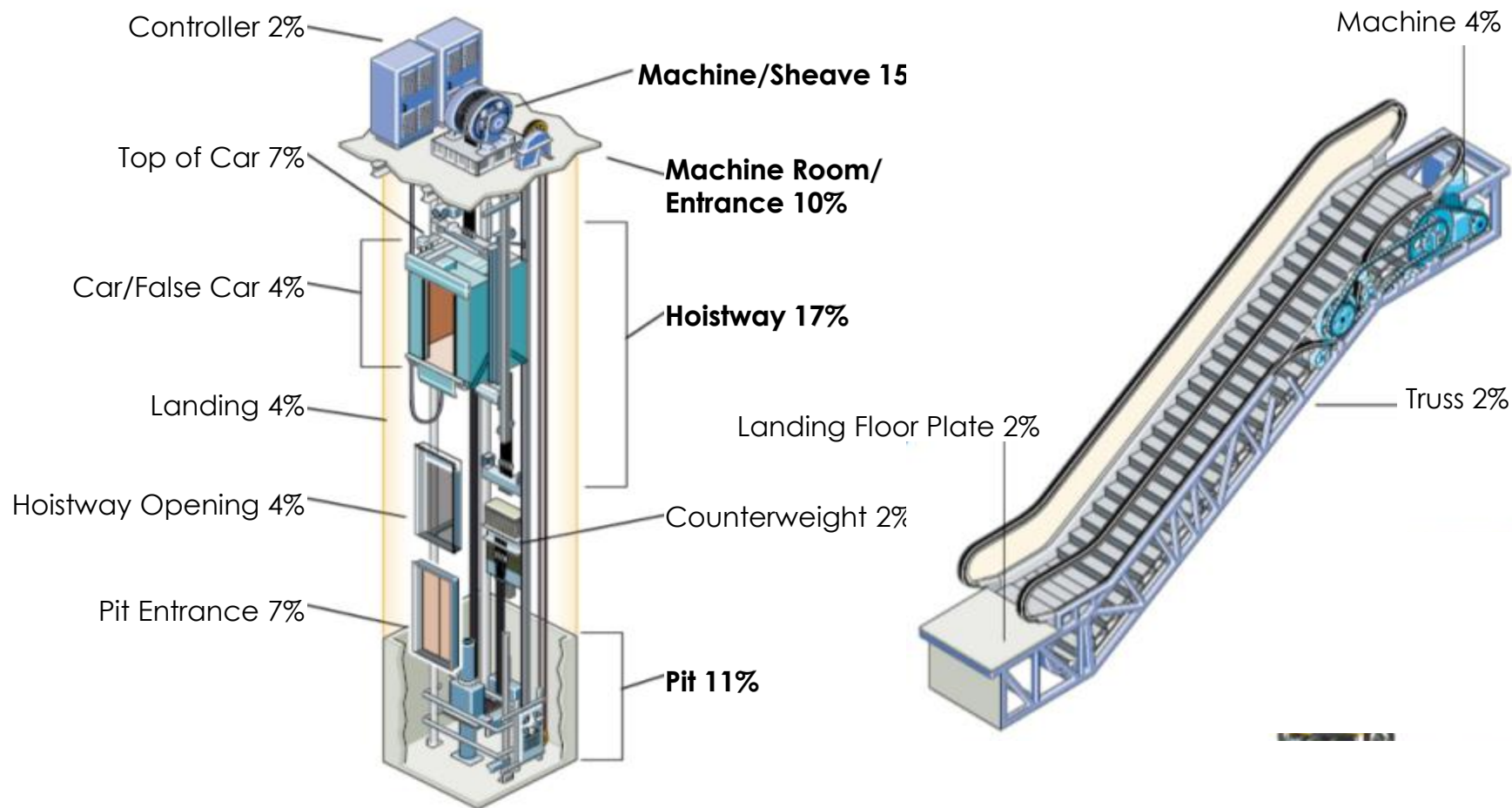
# ELEVATOR SAFETY: GENERAL PUBLIC

## Caution Tape (NYC)

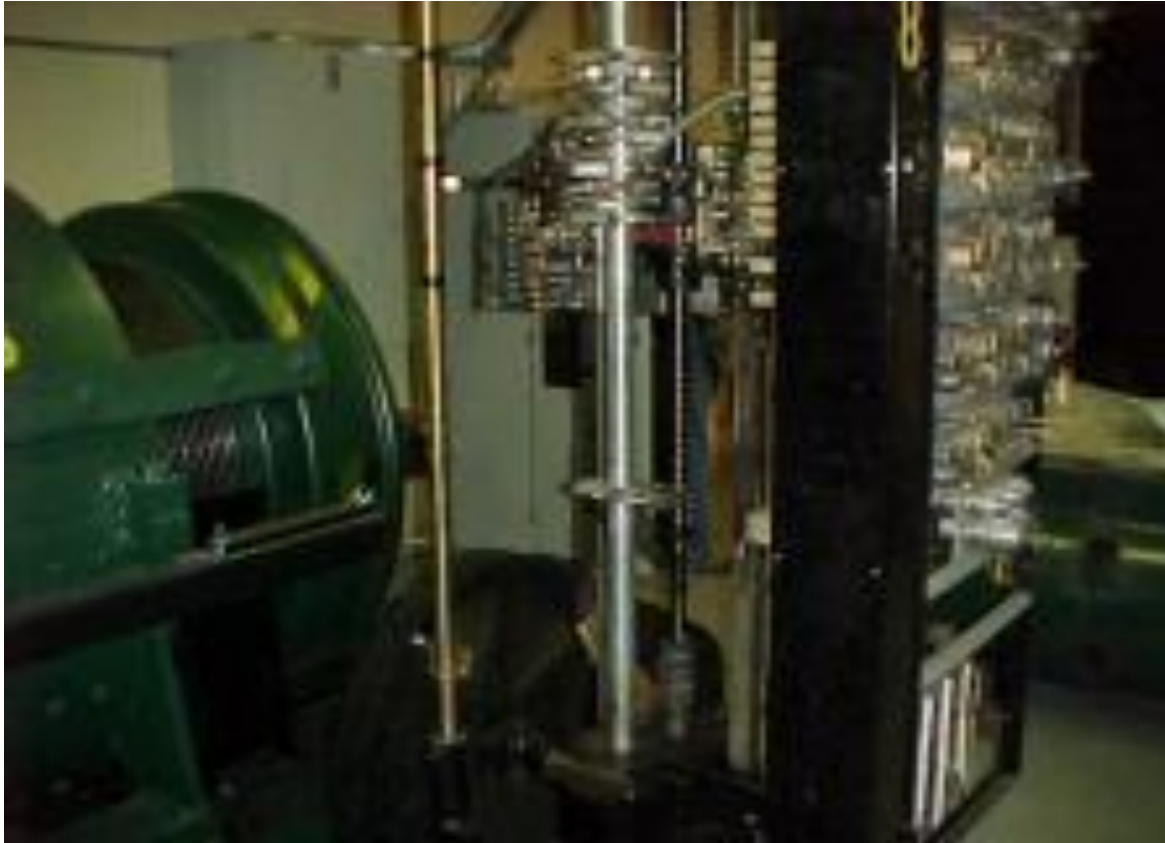
- 3" yellow caution safety tape installed at 18" and 54" on the inside car door threshold when working on the elevator
- Use tape when elevator is removed from normal service and a mechanic is not working in front of the entrance of the device
- Prevents unintended public entrance
- Lights out/doors open communicates that the car is out of service

**CAUTION CAUTION CAUTION**

# ELEVATOR SAFETY: ELEVATOR MECHANIC SERIOUS INJURY RISK AREAS



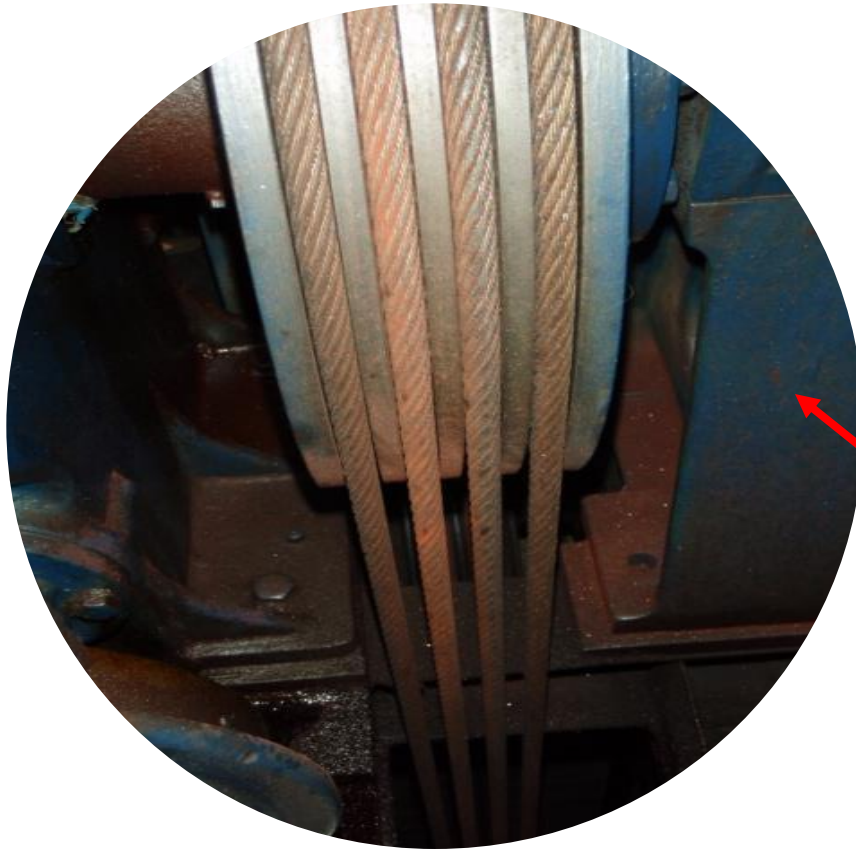
# ELEVATOR SAFETY: ELEVATOR MECHANIC SERIOUS INJURY RISK AREAS



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# MAINTENANCE ISSUES

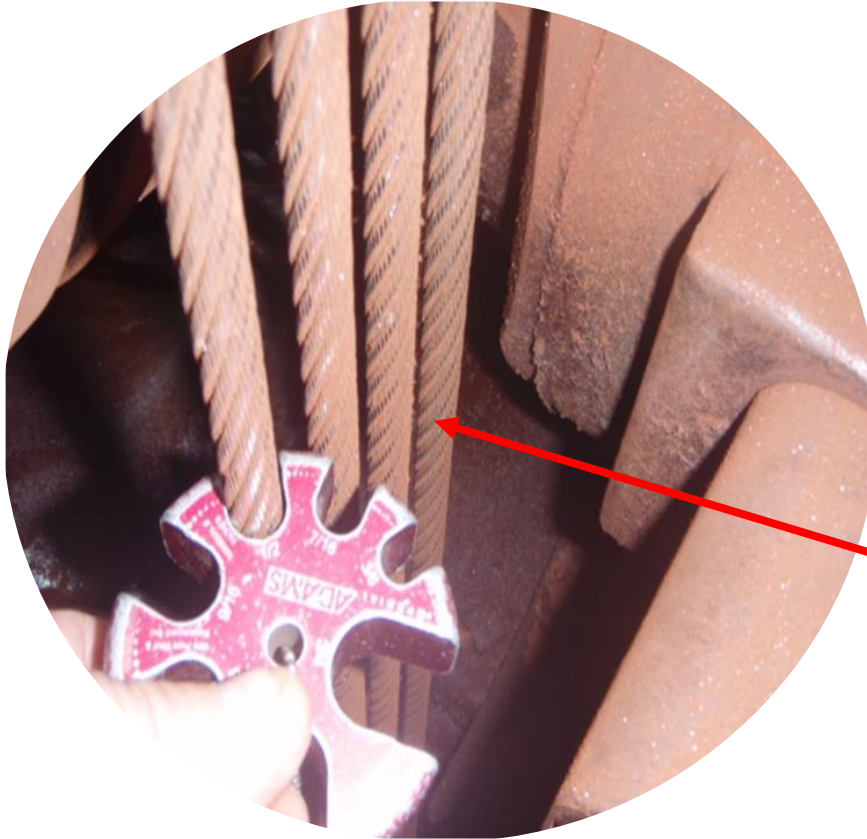


## Hoist Cables

Rouge on ropes:  
lack of maintenance



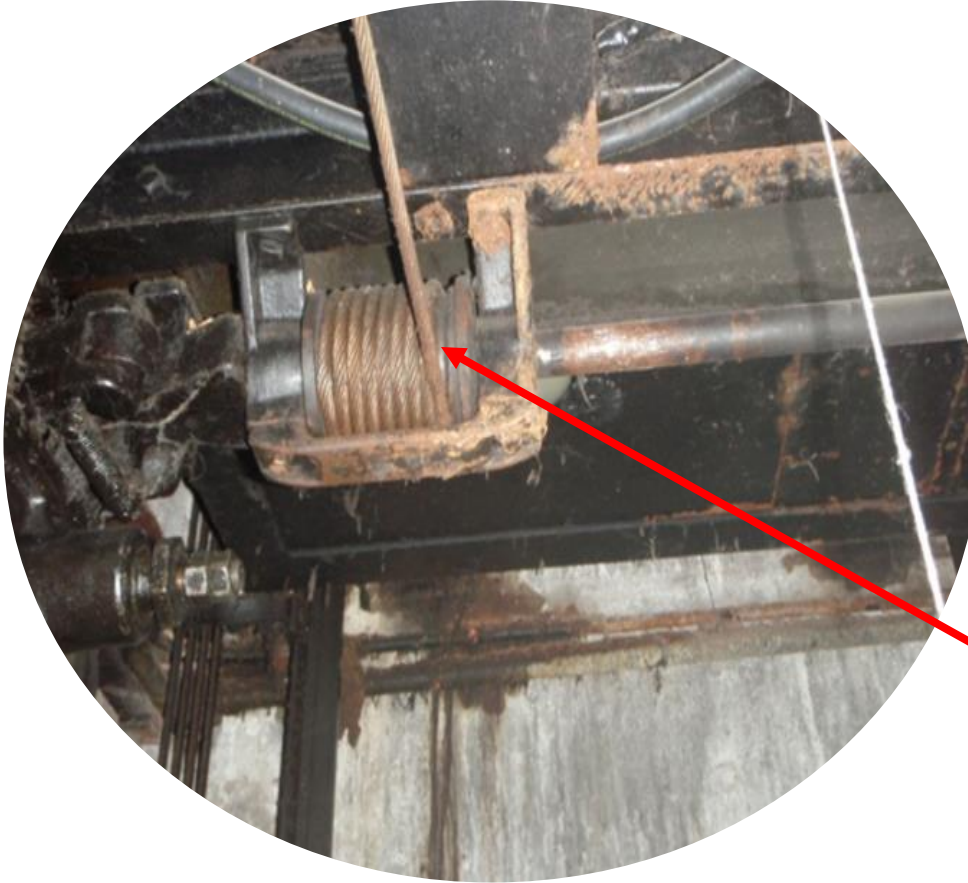
# MAINTENANCE ISSUES



Hoist Cables

Undersized ropes

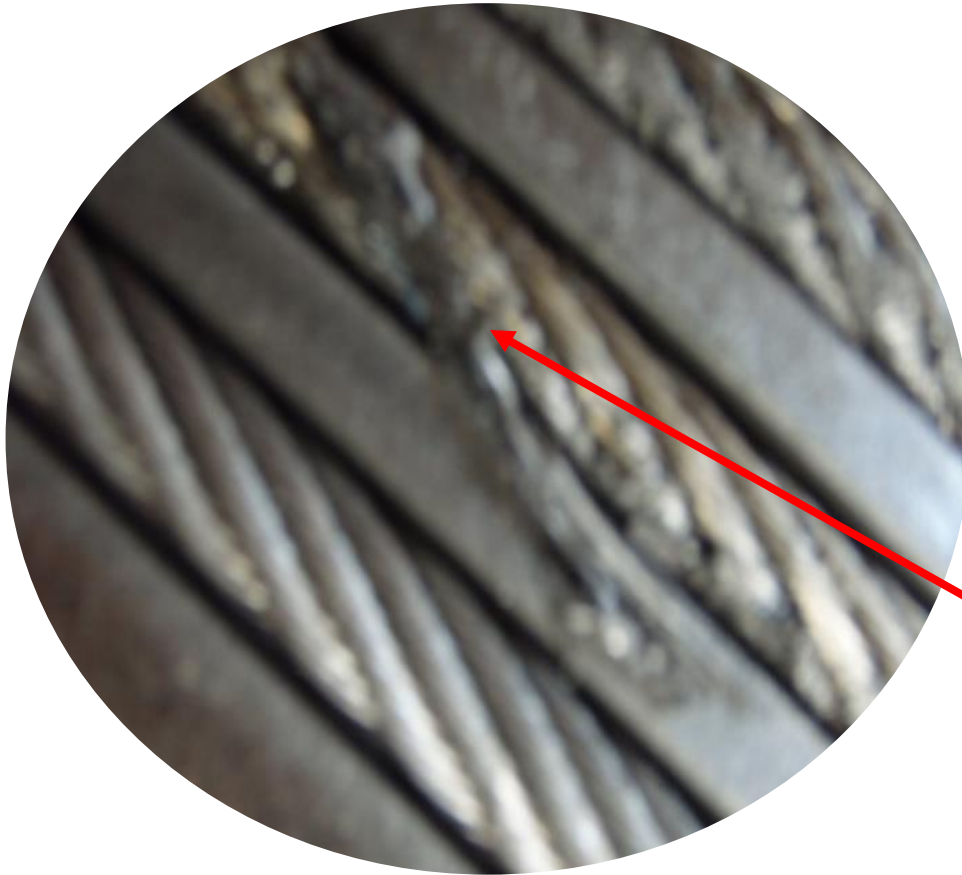
# MAINTENANCE ISSUES



Safety Rope

Severe rust on safety  
cable drum

# MAINTENANCE ISSUES



Hoist Cables

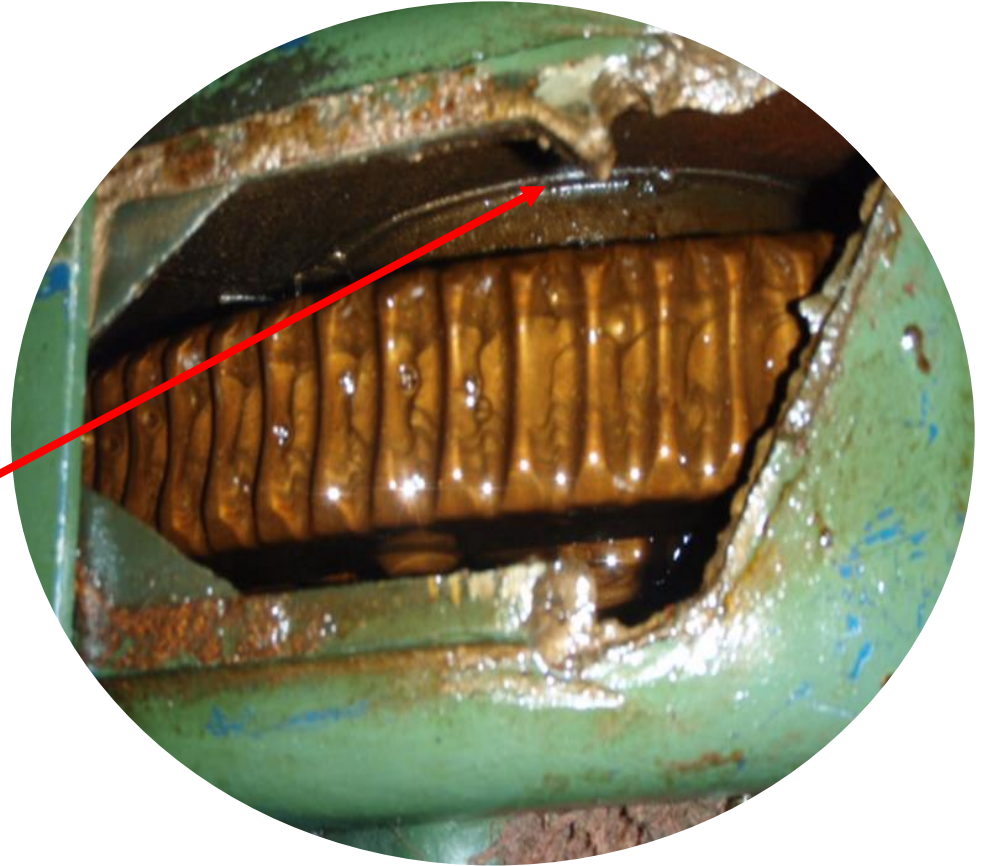
Damaged ropes



# MAINTENANCE ISSUES

## Hoist Machine

Lack of oil change

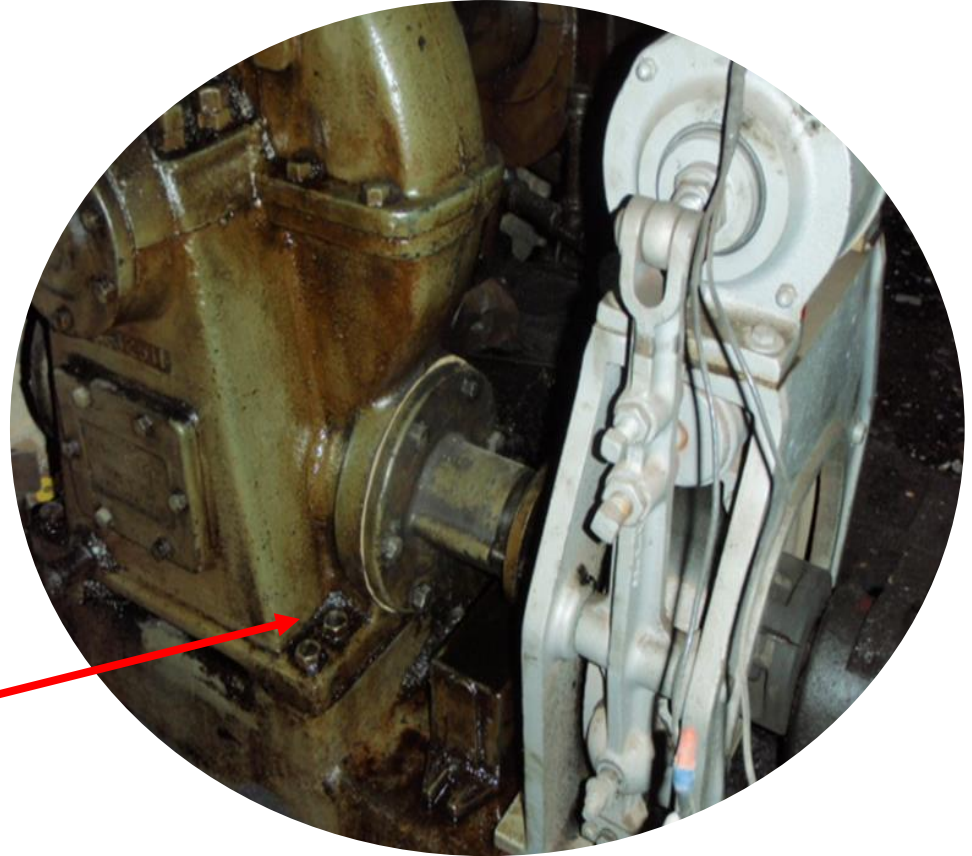




# MAINTENANCE ISSUES

## Hoist Machine

Oil leak on machine



# MAINTENANCE ISSUES

Electrical



Jumped Fuses

# MAINTENANCE ISSUES



Electrical

Exposed wiring



# MAINTENANCE ISSUES

## Safety

Governor switch  
blocked





# MAINTENANCE ISSUES

## Electrical



Exposed Wiring

# MAINTENANCE ISSUES

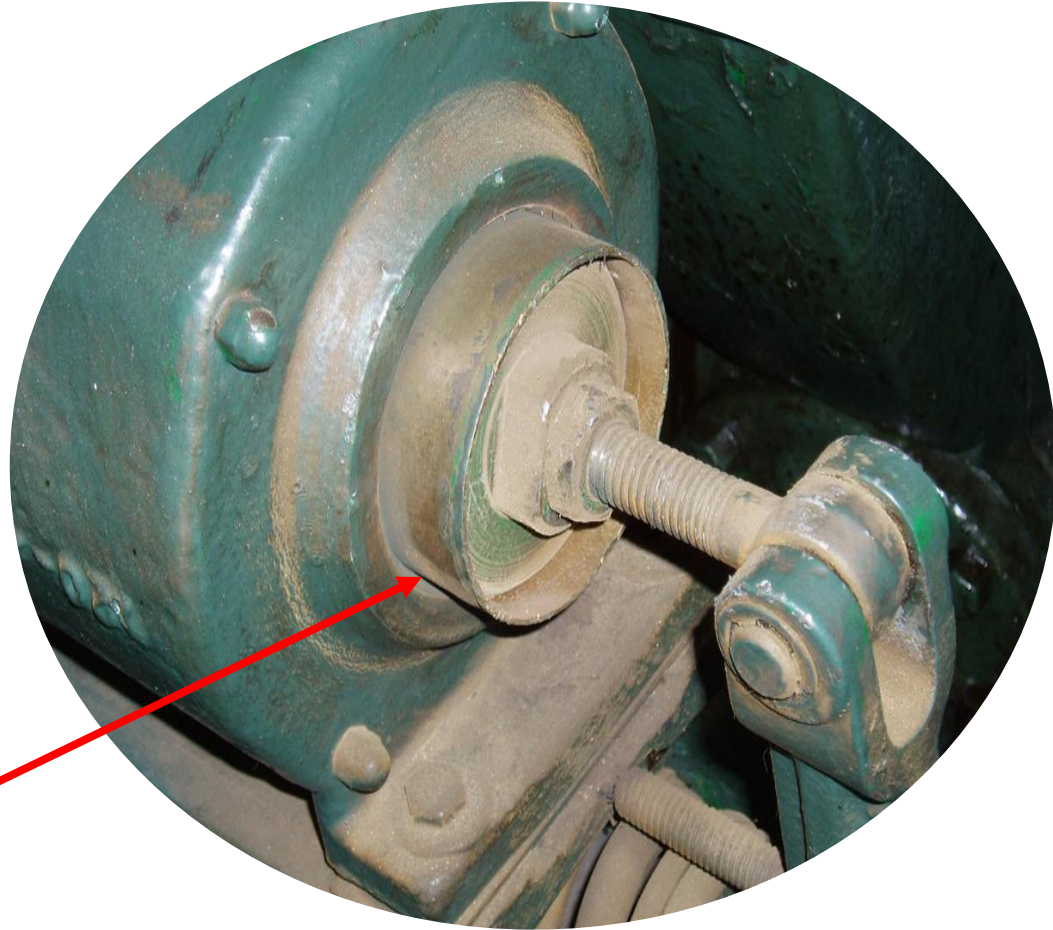
## Housekeeping

Dirty pit = fire hazard



# MAINTENANCE ISSUES

Safety



Brake sleeve  
defective



# HOIST APPLICATIONS

## New Installations

- Electrical permit must be filed for electrical work
- As per the 2014 NYC Building Code (section 3318.4), upon completion of the installation of the personnel hoist and/or its runback structure, an inspection report verifying that the hoist has been installed in accordance with the design drawings, construction documents and specifications shall be prepared by the designer, installer or third party designated by both the designer and installer and acceptable to the commissioner. This inspection report must be submitted by professional engineer to the Department of Buildings.
- Construction application must be filed at the borough office for ties to the building structure and for back structure installation

***NOTE: All hoists must be tested by the department after installation and inspection upon removal of the hoist.***

# HOIST PLAN REVIEW

## Foundation

- Attachment of slabs to mast
- Mast and tie reaction forces calculation
- Types of tie:
  - Type – I, II a, II, 1V, V, etc.
  - All ties are positive (no epoxy)
- Ties in schedule shall not exceed 30 feet
- Hoist cab structure and safety devices



# HOIST INSPECTION REQUIREMENTS

## Acceptance Inspection and Test – Department

- Cathead/Tower Raise – approved agency inspectors (Requires 3-day notification)
- 90 Day Inspection – approved agency inspectors (requires full load test)
- Inspections required as per manufacturer's manual
- Audit inspection – Department
- Hoist removal – Department

# NEW TECHNOLOGY



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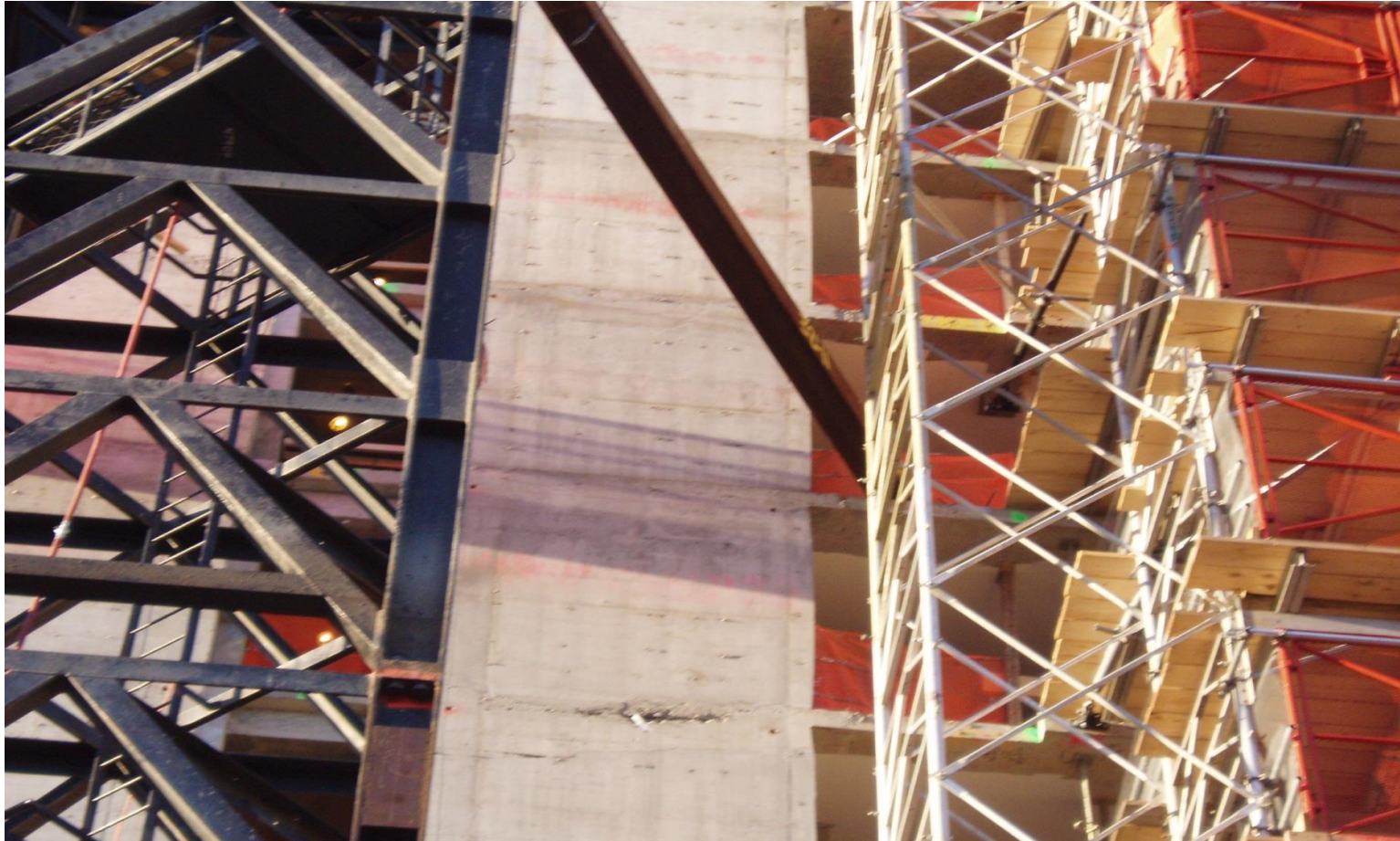
# POWER-OPERATED EQUIPMENT RESTRICTION



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# CLOSE PROXIMITY OF EQUIPMENT



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# MATERIAL HANDLING PLAN NEEDED



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# MAINTENANCE FAILURE



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# GOOD PRACTICE: ISOLATION BRACKET FOR NOISE AND VIBRATION



# HOIST MAINTENANCE ISSUE



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# HOIST MAINTENANCE ISSUE



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# DEVELOP A CULTURE OF SAFETY

## Minimum Operational Requirements

- Comply with Federal, State and City regulations

## Develop a Culture of Safety

- Develop a Safety Management System
- Proactively manage safety through
  - Employee training & communication
  - Proper safety equipment & tools
  - Create an environment where mechanics champion safety
  - Empower mechanics to own safety
  - Support the safest work, not the fastest
  - Vehicle Management/Driver Accountability
  - Invest in the safety program





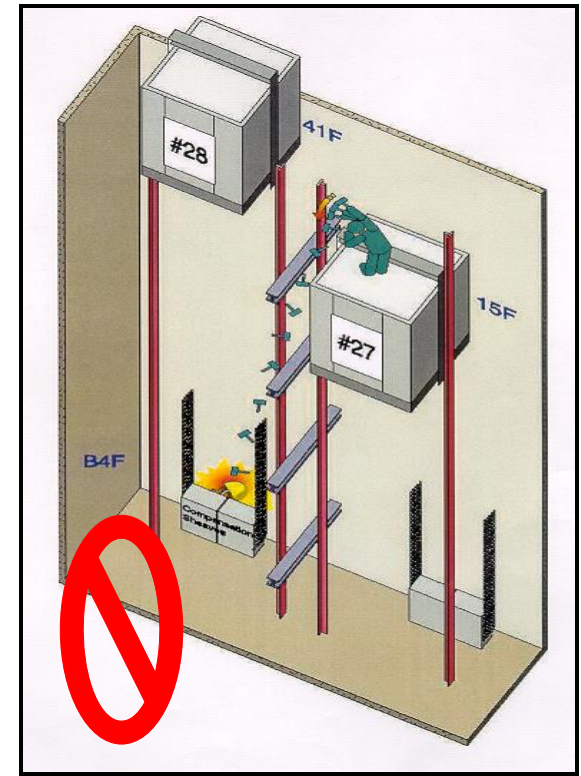
# ESTABLISH RULES



**NEVER** ride escalator  
when steps are removed.



**NEVER** ride the car top  
with the elevator in  
normal operation.



**NEVER** work above or  
below others when working  
in the hoistway.

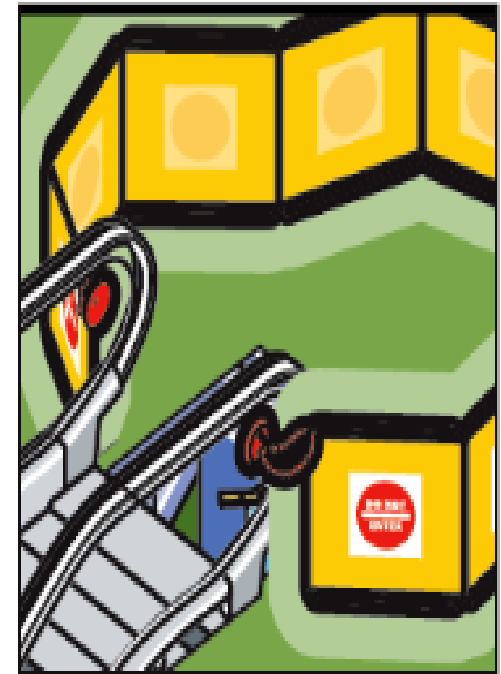
# ESTABLISH RULES



**ALWAYS** control live electricity and rotating equipment when **working** within close proximity.



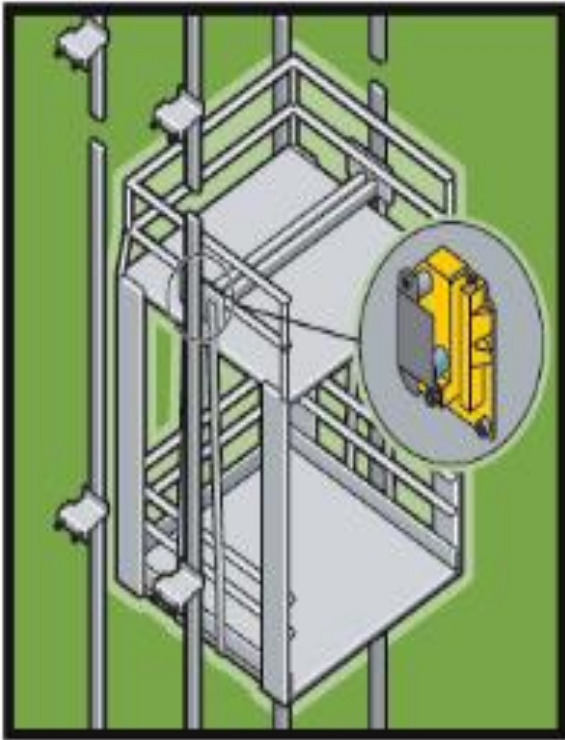
**ALWAYS** secure the step chain from movement.



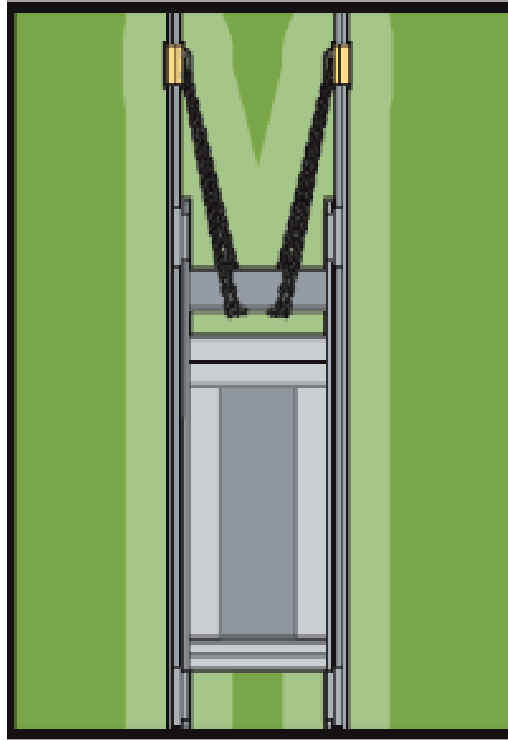
**ALWAYS** use barriers and redundant controls (LOTO) when unattended



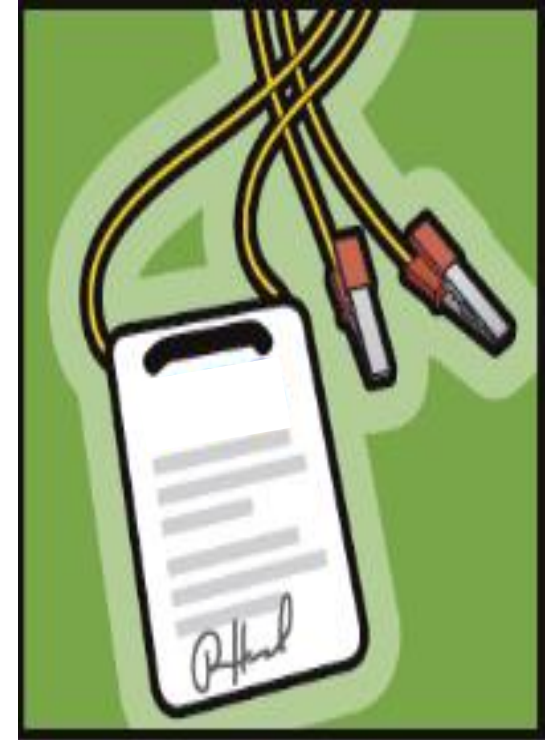
# ESTABLISH RULES



**ALWAYS** follow the operation authorized procedures for false cars/running platforms.

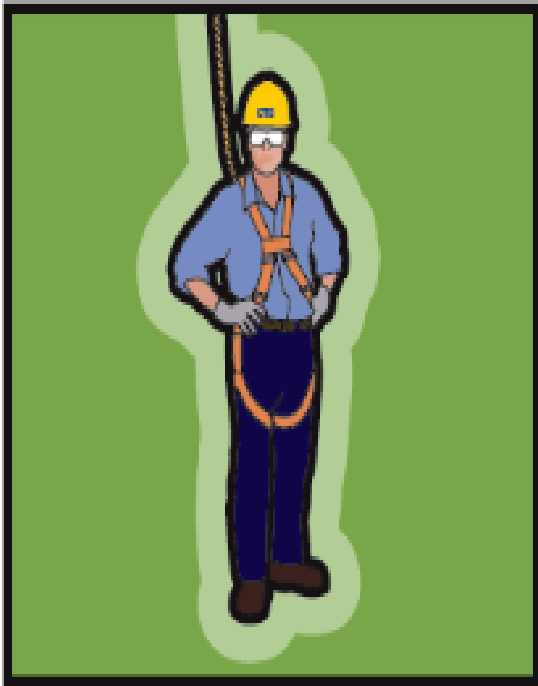


**ALWAYS** use certified and inspected hoisting and rigging equipment.

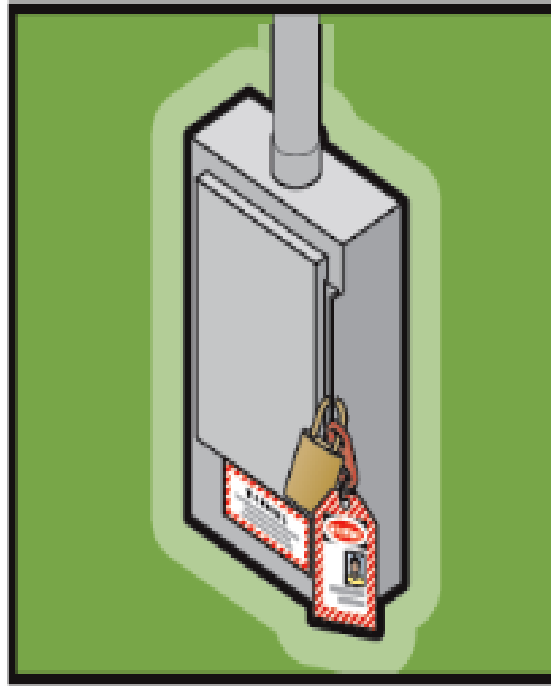


**ALWAYS** follow proper jumper procedures.

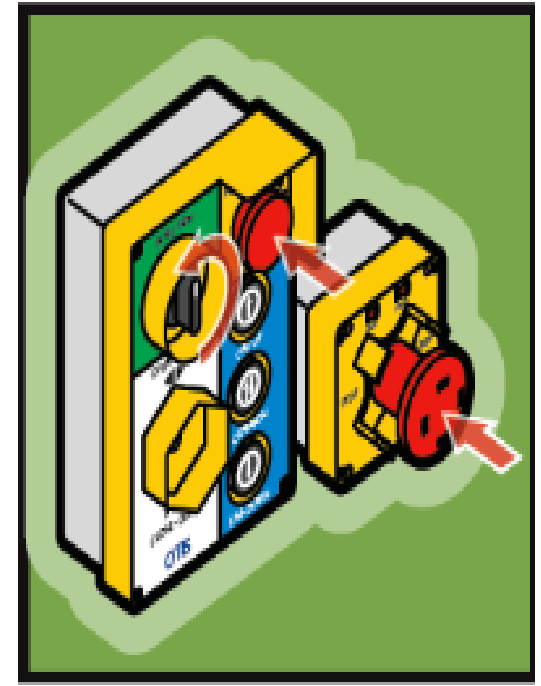
# ESTABLISH RULES



**ALWAYS** use fall protection when a fall hazard exists.



**ALWAYS** lock and tag out equipment when power is not required.



**ALWAYS** establish and maintain control of the unit prior to accessing.

# ESCALATOR SAFETY: GENERAL PUBLIC



## Barricades

- Separates public from the hazards of fall and electricity

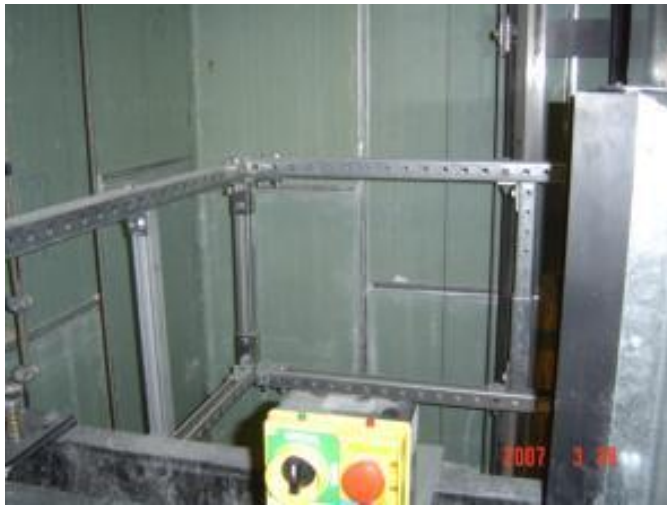




# ELEVATOR SAFETY: ELEVATOR MECHANIC

## Fall Protection

- Elevator mechanics can be exposed to great falls
- Guardrails eliminate the hazard



**Guardrails**



**Fall Protection**



# ELEVATOR SAFETY: ELEVATOR MECHANIC

## Hoistway Access

- Serious injuries occur when control of the car is lost
- Specialized tooling and processes to validate the safety circuits is a best practice



**Specialized Tools**



**Improvised Control**

# ELEVATOR SAFETY: ELEVATOR MECHANIC

## Mechanical Hazards

- Elevator companies maintain equipment that is owned by another party
- Retrofitting of permanent guards is an owner decision
- Use of temporary guarding is a best practice



**Guarded**



**Not Guarded**

# ELEVATOR SAFETY: ELEVATOR MECHANIC

## Electrical Hazards

- If electricity is required for the task, the mechanic must work safely around it.
- Increase distance from the hazard
- Temporarily guard the hazard
- Permanently guard the hazard

**Temporary  
Electrical  
Guarding**



**Exposed  
Electrical**



# ELEVATOR SAFETY: ELEVATOR MECHANIC

## ACCESS/EGRESS MACHINE ROOM

- Presents hazard to the mechanic
- Must commonly access rooftops, staircases and mechanical spaces not designed for public access



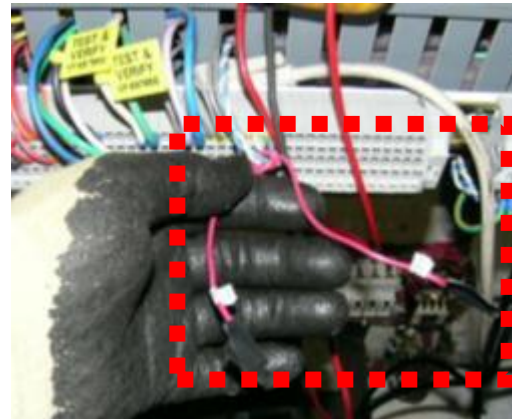


# ELEVATOR SAFETY: GENERAL PUBLIC

## Jumper Management

- The controller is programmed to prevent unwanted movement of the car, jumpers defeat these circuits
- Robust management practices must be applied
- Personal accountability for jumpers must start with the Mechanic

**Controlled  
Jumper**



**Uncontrolled  
Jumper**

# ELEVATOR SAFETY: GENERAL PUBLIC

## Caution Tape (NYC)

- The Code specifies **3"** yellow caution safety tape installed at **18"** and **54"** on the inside car door threshold when working on the elevator
- The tape needs to be utilized when the elevator is removed from normal service and a mechanic is not working in front of the entrance of the actual device
- Prevents unintended public entrance
- Doors open communicates that the car is out of service

**CAUTION CAUTION CAUTION**

# ELEVATOR SAFETY: GENERAL PUBLIC

## Jumper Best Practices

- Jumpers must not be used as a diagnostic tool.
- Temporary bridging devices must never be used to short out hall door contacts.
- Exceptions must have a written JHA approved by supervision.
- Never jump-out door and gate contacts at the same time.
- Ensure that elevator is on inspection prior to placing jumpers on door, gate, or safety circuits.
- When passenger(s) are trapped inside a stalled car, mechanic must never jump car gate and move the car from the machine room unless they have communication either directly with the passenger(s) or with a second mechanic. In these types of situations it is preferable to move the elevator using TOCl.

# OUTREACH PROGRAM

- Elevator Code Review and Interpretation Committee
- Safety and Code Presentation to the Real Estate Industry, Elevator Industry and other stakeholders
- Elevator and Escalator SafeT-Rider Program in City Schools.
- Each November, the Department celebrates **National Elevator and Escalator Safety Week** and DOB representatives visit various schools to provide elevator safety awareness lessons to students in the 2<sup>nd</sup> through 4<sup>th</sup> grades.

***NOTE: The program is sponsored by the National Elevator and Escalator Safety Foundation.***



# SAFE T-RIDER PROGRAM



# OUTREACH PROGRAM



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