The Bureau of Construction Codes is pleased to announce the current elevator rules became effective June 27, 2023. With the adoption of the new rules and code the Bureau would like to provide guidance on notable changes.

- Fees have been updated and a copy of the fee schedule as of 6/27/23 is included after this letter.
- Permits:
  - As of June 29, 2023, all new installation and alteration permits are required to be compliant with the newly adopted rules and codes.
  - Alteration permits will no longer be required for the following:
    - Victaulic seals and fittings.
    - Soft starts (only in a like for like replacement).
    - Flooring (only in a like for like replacement).
  - Emergency Permits:
    - There is a 2-item maximum on emergency permits.
    - Items such as card readers, door systems, and cab interiors will no longer be approved as an emergency permit and will be denied having an alteration permit requested.
    - To request an elevator to be returned to service prior to a final with an inspector the following must take place:
      - All in scope testing must be completed by a licensed elevator journeyperson.
      - Copies of passing in scope test forms must be emailed to the inspector and elevsafety@michigan.gov.
      - A final must be scheduled with the inspector.
  - Dormant elevators:
    - Permits are required when making an elevator dormant.
      - When the work for this permit is completed notify the local inspector and they will perform the inspection as their schedule allows.
        - Note: If there are rule/code violations those will be sent to the permit holder, fees will be assessed, and corrections must be addressed. Then, another final will take place.
    - When there is a request for putting a dormant elevator back into service the following is required:
      - An alteration permit.

        - A dormant elevator must be brought into compliance with CURRENT code and rules, not those under which it was installed.
- ASME A17.3 – 2017: Safety Code for Existing Elevators and Escalators:
    - As authorized in the code, provisions of ASME A17.3 – 2017 will be implemented according to the schedule noted below.
    - Requests for an alternative method of compliance or hardship related to implementation may submit a variance application found here.
- Updated test forms and test tags are being developed. The new test forms will be separated and grouped by like device types.
- A copy of all test forms shall be kept with the maintenance records in the Maintenance Control Program.
- A full and combined set of the newly adopted rules and existing rules will be available on the website here.

If there are any questions, please send those to elevsafety@michigan.gov and we will assist you.

Sincerely,

Andrew Brisbo, Director
Bureau of Construction Codes

Elevator Fees as of 6/27/23

INSTALLATION PERMIT FEES					
	Application Fee (Non Refundable)	Base Permit Fee	Certificate Fee	Hoistway Openings/Floors Traveled (hw/flrs)*	Total
Passenger	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Freight	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Inclined	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Limited Use/Limited Application	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Private Residence	$ 100.00	$ 300.00	$ -	$ 50.00	$400 +hw/flrs fees
Private Residence Inclined	$ 100.00	$ 300.00	$ -	$ 50.00	$400 +hw/flrs fees
Special Purpose Personnel	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Dumbwaiter	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Material Lift	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Power Sidewalk	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Rooftop Elevator	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Belt Manlift	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Special Elevating Device	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Escalator	$ 100.00	$ 360.00	$ 60.00	$ -	$ 520.00
Moving Walk	$ 100.00	$ 360.00	$ 60.00	$ -	$ 520.00
Personnel Hoist	$ 100.00	$ 300.00	$ 60.00	$ 50.00	$460 +hw/flrs fees
Private Residence Platform Lift	$ 100.00	$ 250.00	$ -	$ -	$ 350.00
Private Residence Stairway Chairlift	$ 100.00	$ 250.00	$ -	$ -	$ 350.00
Platform Lift	$ 100.00	$ 100.00	$ 60.00	$ -	$ 260.00
Stairway Chairlift	$ 100.00	$ 100.00	$ 60.00	$ -	$ 260.00

ALTERATION PERMIT FEES					
	Application Fee (Non Refundable)	Base Permit Fee	Hoistway Openings/Floors Traveled (hw/flrs)*	Additional Fee	Total
Personnel Hoist	$ 150.00	$75.00 (includes 1st alteration)		$75.00 hoistway openings	$225.00 + hw/flrs fees
All Other Units	$ 100.00	$75.00 (includes 1st alteration)	$25.00	$75.00 each additional alteration	$175 + ea additional alteration and + hw/floors fees
Dormant Elevator	$ 100.00			$ 100.00	$ 200.00
Emergency Permit	$ 500.00				$500 - max 2 alterations

ANNUAL FEES					
	Certificate Fee	Inspection Fee	Hoistwway Openings/Floors Traveled		Total
1 year device	$ 60.00	$ 175.00	$ 25.00		$235 + hw/flrs fees

2 year device	$ 60.00	$ 125.00	$ -		$ 185.00

MISCELLANEOUS					
	Base Fee		Hoistwway Openings/Floors Traveled		Total
Temporary Certificate of Operation	$ 250.00				$ 250.00
Inspection for Temporary Certificate of Operation	$ 200.00		$ 35.00		$200 + hw/flrs fees
Special Services/Overtime	$ 150.00				$150/hr
Reinspection 1 year device	$ 175.00				$ 175.00
Reinspection 2 year device	$ 125.00				$ 125.00
Permit Failure Residential and 2 year devices	$ 450.00				$ 450.00
Permit Failure All other	$ 750.00				$ 750.00
Variance to the Board	$ 100.00				$ 100.00
Appeal to the Board	$ 250.00				$ 250.00

ASME A17.3 – 2017 Implementation Dates

Effective date of 1-1-2025

2.1.2 Windows in Hoistway Enclosures

Every hoistway-window opening ten stories or less above a thoroughfare, and every such window opening three stories or less above a roof of an adjacent building, shall be guarded on the outside by one of the following methods:

(a) by vertical bars at least 0.625 in. (16 mm) in diameter or equivalent, spaced not more than 10 in. (254 mm) apart, permanently and securely fastened in place

(b) by metal-sash windows having solid-section steel muntin's of not less than 0.125 in. (3.2 mm) thickness, spaced not more than 8 in. (203 mm) apart. Exterior hoistway windows shall be identified with

4 in. (102 mm) high letters marked "ELEVATOR."

2.1.3 Projections in Hoistway

Hoistway enclosures shall have substantially flush surfaces on the hoistway sides used for loading and

unloading, subject to the following:

(a) Landing sills, hoistway doors, door tracks, and hangers shall be permitted to project inside the hoistway enclosure.

(b) Landing sills, except for elevators equipped with vertically sliding biparting counterbalanced doors or with vertically sliding counterweighted doors, which slide down to open, shall be guarded on the underside with guard plates of smooth metal of not less than 0.0598 in. (1.519 mm) in thickness extending not less than the full width of the car entrance and securely fastened in place as follows:

(1) Where a car leveling device is provided and the hoistway edge of the sill is either flush with or projects into the hoistway, the guard shall have a straight vertical face extending below the sill not less than the depth of the leveling zone plus 3 in. (76 mm). Where the sill projects inward from the hoistway enclosure, the bottom of the guard shall also be beveled at an angle of not less than 60 deg nor more than 75 deg from the horizontal or the guard shall be extended from the hoistway edge of the landing sill to the top of door hanger pocket of the next entrance below.

The guard is not required for freight elevators with sills not projecting inward from the hoistway enclosure.

(2) Where no car leveling device is provided and the sill projects inward from the general line of the hoistway, the guard shall be either beveled at an angle of not less than 60 deg nor more than 75 deg from the horizontal, or it shall be permitted to have a straight vertical face extending from the hoistway edge of the sill to the top of the door hanger pocket of the next entrance below.

2.3.1 Access to Pits

(a) Means of access for authorized personnel shall be provided to all pits.

(b) Where a separate pit access door is provided, it shall be self-closing and provided with a spring
type lock arranged to permit the door to be opened from inside the pit without a key. Such doors shall be kept locked.

(c) Keys to unlock the pit access door shall be kept on the premises in a location readily accessible to authorized personnel, but not where they are accessible to the general public. The keys shall be permitted to be the same as those used for the machine room access door.

2.3.3 Stop Switch

A stop switch conforming to the requirements of 3.10.4(e) shall be provided in the pit of every elevator.

The switch shall be located adjacent to the normal pit access.

2.7.3 Elevator Parking Device

(a) Parking Devices Required. Elevators that are operated from within the car only shall have elevator parking devices installed at every landing that is equipped with an unlocking device. On elevators that are not operated from within the car only, an elevator parking device shall be provided at one landing and shall be permitted to be provided at other landings. This device shall be located at a height not greater than 6 ft 11 in. (2.11 m) above the floor. Parking devices are not required for elevators having hoistway doors that are automatically unlocked when the car is within the landing zone.

(b) General Design Requirements. Parking devices shall conform to the following requirements:

(1) They shall be mechanically or electrically operated.

(2) They shall be designed and installed so that friction or sticking or the breaking of any springs used
in the device will not permit opening or unlocking a door when the car is outside the landing zone of that floor.

(3) Springs, where used, shall be of the restrained compression type, which will prevent separation of the parts in case the spring breaks.

(c) In elevators with a parking device, means shall not be permitted to turn off the lighting inside the car
unless a means is provided to ensure that alternative lighting is always available inside the car that meets the requirements of 3.4.5(a) and (b).

2.7.4 Access to Hoistway

Hoistway door unlocking devices or hoistway access switches shall be provided on elevators having hoistway doors that are unlocked when closed with car at landing, or locked but openable from the landing by means effective only when the car is in the landing zone. Hoistway door unlocking devices shall be permitted to be provided at all landings for emergency purposes.

(a) Hoistway Door Unlocking Devices. Hoistway door unlocking devices shall conform to the following:

(1) The device shall unlock and permit the opening of the hoistway door from the access landing irrespective of the position of the car.
(2) The device shall be designed to prevent unlocking the door with common tools.
(3) The operating means for unlocking the door shall be available to and used only by inspectors, elevator maintenance and repair personnel, and qualified emergency personnel.
(4) The unlocking device keyway shall be located at a height not greater than 6 ft 11 in. (2.11 m) above
the floor.
(b) Hoistway Access Switches. Hoistway access switches shall conform to the following:
(1) The switch shall be installed only at the access landings.
(2) The switch shall be installed adjacent to hoistway entrance at the access landing with which it
is identified.
(3) The switch shall be of the continuous pressure spring return type, and shall be operated by a cylinder type lock having not less than a five pin or five disk combination with the key removable only when the switch is in the "OFF" position. The lock shall not be operable by any key that will operate locks or devices used for other purposes in the building. The key or combination shall be available to and used only by inspectors and elevator maintenance and repair personnel.
(4) The operation of the switch at either access landing shall permit, and shall be permitted to initiate and maintain, movement of the car with the hoistway door at this landing unlocked or not in the closed position, and with the car door or gate not in the closed position, subject to the following:
(-a) The operation of the switch shall not render ineffective the hoistway door interlock or electric contact any other landing.
(-b) The car cannot be operated at a speed greater
than 150 ft/min (0.76 m/s). (-c) For automatic and continuous pressure operation elevators, provided that (-1) landing operating devices of continuous pressure operation elevators, and car and landing operating devices of automatic operation elevators, are first made inoperative by means other than the access switch (-2) power operation of the hoistway door and/or car door or gate is inoperative (-d) Automatic operation by a car-leveling device is inoperative.
(-e) The top of car operating device (see 3.10.3) is inoperative.
(f) The movement of the car initiated and maintained by the upper access switch shall be limited in the
down direction to a travel not greater than the height of the car crosshead above the car platform, and limited in the up direction above the upper access landing to the distance the car apron extends below the car platform.
Where electrically operated switches, relays, or contactors are used to render inoperative the hoistway
door interlock or electric contact or the car door or gate electric contact, the control circuits shall be arranged to conform to the requirements of 3.10.9 and in addition, to render the normal car and hall operation ineffective if any such switch, relay, or contactor fails to function in the intended manner.

2.7.5 Restricted Opening of Hoistway Doors and/or Car Doors on Passenger Elevators

(a) when a car is outside the unlocking zone, the hoistway doors or car doors shall be so arrange that the hoistway doors or car doors cannot be3 opened more than 4in (102 mm) from inside the car.

(b) when the car is outside the unlocking zone, the car doors shall be openable from outside the car without the use of special tools.

(c) The unlocking zone shall extend from the landing floor level to a point no greater than 18 in. (457mm) above or below the landing floor level.

3.3.5 Protection of Platforms Against Fire

The underside of wood platforms, the exposed surfaces of wood platform stringers, and edges of laminated platforms shall be protected against fire by one of the following methods:

(a) covering with sheet steel of at least 0.0164 in. (0.4166 mm) in thickness or with equally fire retardant
material.

(b) painting with an approved fire-retardant paint, having flame spread rating of not over 50, applied in
accordance with the instructions of the manufacturer.

Such ratings shall be based on the test procedure specified in ANSI/ASTM E84.

3.4.4.1 Top Emergency Exits

(a) For elevators installed in enclosed hoistways, cars shall be provided with a car top emergency exit with a cover hinged or otherwise attached to the car top so that the cover can be opened from the top of the car only and opens outward.

For multideck elevator cars, the exit cover of the lower compartment shall be openable from either
compartment.

(b) For elevators installed in unenclosed hoistways

(1) top emergency exits shall not be installed in cars in an unenclosed hoistway. Existing top emergency exits shall be permanently secured closed.

(2) where an elevator is installed in a single blind hoistway, there shall be installed in the blind portion of
the hoistway an emergency door at every third floor, but not more than 36 ft (10.97 m) from sill to sill conforming to the following:

(-a) The clear opening shall be at least 28 in. (711 mm) wide and 6 ft 6 in. (1 981 mm) high.

(-b) It shall be easily accessible and free from fixed obstructions.

(-c) It shall be either of the horizontal sliding or swinging single-section type, irrespective of the type of
door installed at other landings.

(-d) It shall be self-closing and self-locking and shall be marked, in letters not less than 2 in. (51 mm)
high, “DANGER, ELEVATOR HOISTWAY.”

(-e) It shall be provided with an electric contact conforming to the requirements of 2.7.6.

(-f) It shall be unlocked from the landing side only through the use of a cylinder-type lock, having
not less than a five-pin or five-disk combination. The cylinder lock shall
(-1) not be unlocked by any key or combination that will open any other lock or device used for any
purpose in the building
(-2) be so designed that the key shall be removable only in the locked position
(-g) The key or combination shall be kept where it is available only to authorized persons.
(3) Telephone as Alternative to Emergency Doors.
Where an elevator is installed in a single blind hoistway, and there are no landings from which to gain access through an emergency door, a means of two-way conversation conforming to 3.11.1 shall be provided, except that the means to activate the two-way conversation system shall be provided in the car.
NOTE [3.4.4.1(b)(3)]: Examples are pulp mills, grain elevators, dams, or similar locations.

3.5.1 Car Safeties
The car of every elevator suspended by wire ropes shall be provided with a safety capable of stopping and sustaining the car with rated load. When the safety is operated by a governor, the safety shall be capable of stopping and sustaining the car with rated load from governor tripping speed.

3.5.5 Maximum Permissible Movement of Governor
Rope to Operate the Safety Mechanism For all Type B safeties the movement of the governor rope relative to the car or the counterweight, respectively, required to operate the safety mechanism from its fully retracted position to a position where the safety jaws begin to exert pressure against the guide rails shall not exceed the following values based on rated speed:
(a) for car safeties
(1) 200 ft/min (1.02 m/s) or less, 42 in. (1.07 m)
(2) 201 ft/min (1.03 m/s) to 375 ft/min (1.91 m/s), 36 in. (914 mm)
(3) over 375 ft/min (1.91 m/s), 30 in. (762 mm)
(b) for counterweight safeties, 42 in. (1.07 m) for all speeds
Drum operated car and counterweight safeties, requiring continual unwinding of the safety drum rope to fully apply the safety, shall be so designed that not less than three turns of the safety rope will remain on the drum after the overspeed test of the safety has been made with rated load in the car.

3.9.2 Final Terminal Stopping Devices
Enclosed upper and lower final terminal electromechanical stopping devices shall be provided and
arranged to prevent movement of the car by the normal operating devices in either direction of travel after the car has passed a terminal landing. Final terminal stopping devices shall be located as follows:

(a) Winding Drum Driving Machines. Elevators having winding drum machines shall have stopping switches on the machines and also in the hoistway operated by the movement of the car.
(b) Traction Driving Machines. Elevators having traction driving machines shall have stopping switches in the hoistway operated by the movement of the car.

3.10.1 Types of Operating Devices
Manually actuated rope (i.e., shipper rope) or rod operating devices, or rope operating devices actuated
by wheels, levers, or cranks shall not be used.

3.10.2 Car Switch Operation Elevators
Handles of lever type operating devices of car switch operation elevators shall be so arranged that they will return to the stop position and latch there automatically when the hand of the operator is removed.

4.5.2 Pressure Tanks
(a) Vacuum Relief Valves. Tanks subject to vacuum sufficient to cause collapse shall be provided with one or more vacuum relief valves with openings of sufficient size to prevent collapse of the tank.
(b) Gage Glasses. Tanks shall be provided with one or more gage glasses attached directly to the tank and
equipped to shut off the liquid automatically in case of failure of the glass. The gage glass or glasses shall be so located as to indicate any level of the liquid between permissible minimum and maximum levels, and shall be equipped with a manual cock at the bottom of the lowest glass.
(c) Pressure Gage. Tanks shall be provided with a pressure gage that will indicate the pressure correctly to not less than 11⁄2 times the pressure setting of the relief valve.
The gage shall be connected to the tank or water column by pipe and fittings with a stop cock in such a manner that it cannot be shut off from the tank except by the stop cock. The stop cock shall have a “T” or lever handle set in line with the direction of flow through the valve when open.
(d) Inspector’s Gage Connection. Tanks shall be provided with 0.25 in. (6.3 mm) pipe size valve connection for attaching an inspector’s pressure gage while the tank is in service.
(e) Liquid Level Detector. Tanks shall be provided with a means to render the elevator inoperative if for any reason the liquid level in the tank falls below the permissible minimum.
(f) Handholes and Manholes. Tanks shall be provided with means for internal inspection.
(g) Piping and Fittings for Gages. Piping and fittings for gage glasses, relief valves, and pressure gages shall be of a material that will not be corroded by the liquid used in the tank.

Effective date of 1-1-2026

2.1.4 Pipes, Air Ducts, and Wiring

2.1.4.1 Pipes. Pipes conveying gases, vapors, or liquids and not used in connection with the operation
of the elevator, which if discharged into the hoistway could be hazardous, shall not be permitted in a hoistway except as covered by (a) through (e).

(a) Steam and hot water pipes are permitted in hoistways, for the purpose of heating these areas only,
subject to the following:

(1) Heating pipes shall convey only low-pressure steam [5 psi (34 kPa) or less] or hot water [212°F (100°C) or less].

(2) All risers and return pipes shall be located outside the hoistway.

(3) Traps and shutoff valves shall be provided in accessible locations outside the hoistway. (b) Pipes for sprinklers only are permitted in hoistways subject to the following:

(1) All risers and returns shall be located outside of the hoistway.

(2) Branch lines in hoistway shall supply sprinklers at not more than one floor level.

(c) Piping for pit and sump pumps is permitted.

(d) Existing pipes that cannot be removed or rerouted shall be securely fastened and covered to separate them from the hoistway, prevent leakage or condensate from entering the hoistway, and prevent interference with the operation of the elevator equipment.

(e) No pipes shall be installed in the hoistway unless they directly pertain to the operation of the elevator.

NOTE: The installation of sprinklers in an existing machine room or hoistway is an alteration. See ASME A17.1, requirements 8.7.2.8 and 8.7.3.8.

2.2.4 Ventilation

Machine rooms shall be provided with natural or mechanical ventilation to avoid overheating of the electrical equipment and to ensure safe and normal operation of the elevator.

2.8.2 Reopening Device for Power Operated Car

Doors or Gates

Where required by 2.8.1, a power operated car door or gate shall be provided with a reopening device that will function to stop and reopen the car door or gate and the adjacent hoistway door in the event that the car door or gate is obstructed while closing. If the closing kinetic energy is reduced to 2.5 ft lbf (3.39 J) or less, the reopening device shall be permitted to be rendered inoperative [see 2.8.1(a)].

For center opening doors or gates, the reopening device shall be so designed and installed that the
obstruction of either door or gate panel when closing will cause the reopening device to function.

3.6.1 Speed Governor Overspeed and Car Safety Mechanism Switches

A switch shall be provided on the speed governor and operated by the overspeed action of the governor
when used with Type B and Type C car safeties of elevators having a rated speed exceeding 150 ft/min
(0.76 m/s). A switch shall be provided on the speed governor when used with a counterweight safety for
any car speed. For static control, an overspeed switch shall be provided regardless of rated speed and shall operate in both directions of travel. These switches shall, when operated, remove power
from the driving machine motor and brake before or at the time of application of the safety. Switches used to perform the function specified shall be positively opened and remain open until manually reset. Switches operated by the car safety mechanism shall be of a type that will not reset unless the car safety mechanism has been returned to the off position.

3.10.4 Electrical Protective Devices

Electrical protective devices shall be provided in accordance with the following:

(a) Slack Rope Switch. Winding drum machines shall be provided with a slack rope device equipped with a slack rope switch of the enclosed manually reset type that shall cause the electric power to be removed from the elevator driving machine motor and brake if the suspension ropes become slack.

(b) Motor Generator Running Switch. Where generator field control is used, means shall be provided
to prevent the application of power to the elevator driving machine motor and brake unless the motor generator set connections are properly switched for the running condition of the elevator. It is not required that the electrical connections between the elevator driving machine motor and the generator be opened in order to remove power from the elevator motor.

(c) Compensating Rope Sheave Switch. Compensating rope sheaves shall be provided with a compensating rope sheave switch or switches mechanically opened by the compensating rope sheave before the sheave reaches its upper or lower limit of travel to cause the electric power to be removed from the elevator driving-machine motor and brake.

(d) Broken Rope, Tape, or Chain Switches Used in Connection With Machine Room Normal Terminal Stopping Switches. Broken rope, tape, or chain switches conforming to the requirements of 3.6.1 shall be provided in connection with normal terminal stopping devices located in machine rooms of traction elevators. Such switches shall be opened by a failure of the rope, tape, or chain.

(e) Stop Switch on Top of Car. A stop switch shall be provided on the top of every elevator car, which shall
cause the electric power to be removed from the elevator driving-machine motor and brake; and

(1) be of the manually operated and closed type

(2) have red operating handles or buttons

(3) be conspicuously and permanently marked “STOP” and shall indicate the stop and run positions

(4) be positively opened mechanically (opening shall not be solely dependent on springs)
(f) Car-Safety Mechanism Switch. A switch shall be required where a car safety is provided.
(g) Speed Governor Overspeed Switch. A speed governor overspeed switch shall be provided when required by 3.6.1.
(h) Final Terminal Stopping Devices. Final terminal stopping devices shall be provided for every elevator.
(i) Emergency Terminal Speed Limiting Device. Where reduced stroke oil buffers are provided, emergency terminal speed limiting devices are required.
(j) Motor Generator Overspeed Protection. Means shall be provided to cause the electric power to be removed automatically from the elevator driving-machine motor and brake should a motor generator set, driven by a direct current motor, overspeed excessively.
(k) Motor Field Sensing Means. Where direct current is supplied to an armature and shunt field of an elevator drivingmachine motor, a motor field current sensing means shall be provided, which shall cause the electric power to be removed from the motor armature and brake unless current is flowing in the shunt field of the motor. A motor field current sensing means is not required for static control elevators provided with a device to detect an overspeed condition prior to, and independent of, the operation of the governor overspeed switch. This device shall cause power to be removed from the elevator driving-machine motor armature and machine brake.
(l) Buffer Switches for Oil Buffers Used with Type C Car Safeties. Oil level and compression switches shall be provided for all oil buffers used with Type C safeties.
(m) Hoistway-Door Interlocks or Hoistway-Door Electric Contacts. Hoistway-door interlocks or hoistway-door electric contacts shall be provided for all elevators.
(n) Car Door or Gate Electric Contacts. Car door or gate electric contacts shall be provided for all elevators.
(o) Normal Terminal Stopping Devices. Normal terminal stopping devices shall be provided for every elevator.
(p) Car Side Emergency Exit Electric Contact. An electric contact shall be provided on every car side emergency exit door.
(q) Electric Contacts for Hinged Car Platform Sills. Hinged car platform sills, where provided, shall be equipped with electric contacts.
(r) In-Car Stop Switch. On passenger elevators equipped with nonperforated enclosures, a stop switch,
either key operated or behind a locked cover, shall be permitted to be provided in the car and located in or adjacent to the car operating panel. The switch shall be clearly and permanently marked “STOP” and shall indicate the stop and run positions. The switch shall be positively opened mechanically and its opening shall not be solely dependent on springs. When opened, this switch shall cause the electric power to be removed from the elevator driving-machine motor and brake.
(s) Emergency Stop Switch. On all freight elevators, passenger elevators with perforated enclosures, and passenger elevators with nonperforated enclosures not provided with an in-car stop switch [see (r)], an emergency stop switch shall be provided in the car and located in or adjacent to each car operating panel. When open ("STOP" position), this switch shall cause the

electric power to be removed from the elevator driving-machine motor and brake and shall conform to the following:
(1) be of the manually operated and closed type
(2) have red operating handles or buttons
(3) be conspicuously and permanently marked "STOP" and shall indicate the stop and run positions
(4) have contacts that are positively opened mechanically (opening shall not be solely dependent on
springs)
(t) Stop Switch in Pit. A stop switch conforming to the requirements of (e) shall be provided in the pit of every elevator. The switch shall be located adjacent to the normal pit access.
(u) Buffer Switches for Gas Spring Return Oil Buffers. A buffer switch shall be provided for gas spring return oil buffers that will cause electric power to be removed from the elevator driving-machine motor and brake if the plunger is not returned.

Effective date of 1-1-2027

3.6.2 Governor Ropes
Governor ropes shall be of iron, steel, monel metal, phosphor bronze, or stainless steel. They shall be
regular-lay construction, and not less than 0.375 in. (9.5 mm) in diameter. Tiller-rope construction shall not be used. The factor of safety of governor ropes shall be not less than 5.

3.10.3 Top-of-Car Operating Devices
(a) Elevators with automatic or continuous-pressure operation shall have a continuous-pressure button
operating switch mounted on the top of the car for the purpose of operating the car solely from the top of the car. The device shall operate the car at a speed not exceeding 150 ft/min (0.76 m/s).
4.7.2 4.7.2 Top-of-Car Operating Devices Top-of-car operating devices shall be provided and shall conform to the requirements of 3.10.3, except for un-counterweighted elevators having a rise of not more than 15 ft (4.57 m). The bottom normal terminal stopping device shall be permitted to be made ineffective while the elevator is under the control of the top-of-car operating device.

2.2.2 Access to Machine Rooms and Machinery Spaces
A permanent means of access to elevator machine rooms and machinery spaces shall be provided for
authorized persons. Access doors to machine rooms and machinery spaces shall be kept closed and locked. The only means of access to a machine room shall not be through the hoistway. The lock shall be of a spring type arranged to permit the door to be opened from the inside without a key.

2.6.1 Doors or Gates Required

(a) Passenger Elevators. Hoistway-landing openings for passenger elevators shall be provided with entrances that guard the full width and the height of the openings. Hand latches, pull bars, doorknobs or other hand operated door fastening devices mounted on swinging type hoistway doors shall not project beyond the line of the hoistway-door sill on automatic or continuous pressure operation passenger elevators that can be operated from hall buttons or switches at the landings. Devices such as continuous rings or loop handles that can trap a hand or fingers are prohibited.

(b) Freight Elevators. Hoistway-landing openings for freight elevators shall be provided with entrances that guard the full width of the opening and guard the height to a minimum of 6 ft (1.83 m) above the landing sill. At the top landing a gate 66 in. (1.65 m) high shall be permitted to be used if there is not sufficient clearance for a 6 ft (1.83 m) high gate. When the requirements of 2.1.1 allow non-fire-resistive hoistway enclosures, a gate shall be permitted to be used. The door or gate shall be permitted to have a maximum 1 in. (25 mm) vertical opening between the landing sill and the door or gate.

(1) Openings in gates shall reject a ball 2 in. (51 mm) in diameter.

(2) A gate made in two or more sections that overlap, and that slides or telescopes shall be permitted to
be used, provided that the openings reject a ball 0.375 in. (9.5 mm) in diameter.

(3) Where openings do not meet the requirements of (b)(1) or (b)(2), they shall be protected by grilles or
screens made from stainless or galvanized steel of not less than 0.0568 in. (1.4 mm) in thickness. Such grilles or screens shall comply with the following:

(-a) Grilles or screens shall be sized to fit over the gate and completely cover all openings.

(-b) Grilles or screens shall be secured by means of nonreversible screws or other tamperproof fasteners.

(-c) All edges shall be free of burrs and beveled.

(-d) Grilles shall be installed on the hoistway side of the gate.

(c) Automatic fire doors, the functioning of which is dependent on the action of heat, shall not lock any elevator hoistway door so that it cannot be opened manually from inside the hoistway, nor shall such door lock any exit leading from any elevator hoistway door to the outside of the building.

(d) Handles or other means provided for operation of manually operated doors shall be so located that it
is not necessary to reach the back of any panel, jamb, or sash to operate them.

(e) Combination Horizontally Sliding Doors and Swinging Panel Hoistway Entrances. Hoistway entrances
consisting of a combination of horizontally sliding doors and a stationary swinging panel shall

(1) have the swinging panel permanently secured closed; or

(2) where the swing panel assembly remains in use, the latches or removable fastenings shall be accessible only from the hoistway side of the entrance. The swing panel shall be equipped with electric contacts conforming to the following:

(-a) The contacts shall be positively opened by a lever or other device attached to and operated by the

swing panel.
(-b) The contacts shall be maintained in the open position by the action of gravity or by a restrained compression spring, or by both, or by positive mechanical means.
(-c) When the contacts are opened, electric power shall be removed from the driving machine and brake.
(-d) Mercury tube switches shall not be used.

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3.4.2 Car Doors and Gates
(a) Doors, Gates, and Electric Contacts. Cars shall have a car door or gate provided at each entrance equipped with a car door or gate electric contact conforming to following requirements:
(1) It shall be positively opened by a lever or other device attached to and operated by the door or gate.
(2) It shall be maintained in the open position by the action of gravity or by a restrained compression
spring, or both, or by positive mechanical means.
(3) It shall not be readily accessible.
(b) Car Door Interlock. A car door interlock shall be required for
(1) car doors of elevators where the clearance between the loading side of the car platform and hoistway enclosure exceeds the maximum specified in 2.4.1
(2) car doors of elevators that face an unenclosed portion of the hoistway during the travel of the car
(c) Closed Position of Car Doors or Gates. Car doors or gates shall be considered to be in the closed position under the following conditions:
(1) for horizontally sliding doors or gates, when the clear open space between the leading edge of the
door or gate and the nearest face of the jamb does not exceed 2 in. (51mm) except where car doors are provided with a car door interlock(s), 0.375 in. (10 mm)
(2) for vertically sliding counterweighted doors or gates, when the clear open space between the leading
edge of the door or gate and the car platform sill does not exceed 2 in. (51 mm)
(3) for horizontally sliding center opening doors, or vertically sliding biparting counterbalanced doors,
when the door panels are within 2 in. (51 mm) of contact with each other, except where horizontally sliding center opening car doors are provided with a car door interlock(s), 0.375 in. (10 mm)
(d) Collapsible Gates. Collapsible car gates shall conform to the following requirements:
(1) Collapsible car gates shall not be power opened to a distance exceeding one third of the clear gate opening, and in no case more than 10 in. (254 mm).
(2) When fully closed (extended position), gates shall reject a ball 3 in. (76 mm) in diameter for passenger elevators and 4.5 in. (114 mm) for freight elevators.

(3) Gates shall have at least every fourth vertical member guided at the top and every second vertical member guided at the bottom.
(4) Handles of manually operated collapsible gates nearest the car operating device on elevators operated from the car only shall be so located that the nearest handle is not more than 48 in. (1.22 m) from the car operating device when the gate is closed (extended position), and not more than 48 in. (1.22 m) above the car floor. Gate handles shall be provided with finger guards.

3.10.12 System to Monitor and Prevent Automatic Operation of the Elevator with Faulty Door Contact Circuits

Means shall be provided to monitor the position of the power operated car doors that are mechanically coupled with the landing doors while the car is in the landing zone, in order

(a) To prevent automatic operation of the car if the car door is not closed, regardless of whether the portion of the circuits incorporating the car door contact or the interlock contact of the landing door coupled with the car door, or both, are closed or open except as permitted in 3.10.7

(b) To prevent the poser closing of the doors during automatic operation if the car door is fully open and any of the following conditions exist:
   (1) The car door contact is closed, or the portion of the circuit incorporating this contact is bypassed.
   (2) The interlock contact of the landing door that is coupled to the opened car door is closed, or the portion of the circuit incorporating this contact is bypassed.
   (3) The car door contact and the interlock contact of the door that is coupled to the opened car door are closed, or the portions of the circuits incorporating these contacts are bypassed.

3.11.3 3.11.3 Firefighters' Service

Elevators shall conform to the requirements of ASME/ ANSI A17.1–1987 Rules 211.3 through 211.8 (see
Nonmandatory Appendix C) unless at the time of installation or alteration it was required to comply with a later edition of A17.1.
All elevators that are a part of a group shall conform to identical firefighters' service operation requirements regardless of which edition of A17.1 they complied with at the time of their installation or alteration.
The Phase I and Phase II switches for all elevators in a building shall be operable by the same key.

4.3.3 4.3.3 Hydraulic Elevators

Hydraulic elevators that have any portion of the cylinder buried in the ground and that do not have a double cylinder or a cylinder with a safety bulkhead shall;
(a) have the cylinder replaced with a double cylinder or a cylinder with a safety bulkhead protected from

corrosion by one or more of the following methods:
(1) monitored cathodic protection
(2) a coating to protect the cylinder from corrosion that will withstand the installation process
(3) a protective plastic casing immune to galvanic or electrolytic action, saltwater, and other known underground conditions, or
(b) be provided with a device meeting the requirements of Section 3.5 or a device arranged to operate in
the down direction at an overspeed not exceeding 125% of rated speed. The device shall mechanically act to limit the maximum car speed to the buffer striking speed, or stop the elevator car with rated load with a deceleration not to exceed 32.2 ft/sec2 (9.8 m/s
2) and shall not automatically reset. Actuation of the device shall cause power to be removed from the pump motor and control valves until manually reset, or
(c) have other means acceptable to the authority having jurisdiction to protect against unintended movement of the car as a result of uncontrolled fluid loss.