

CITY OF ORANGE
MUNICIPAL CODE CHAPTER 15.52
BUILDING SECURITY STANDARDS
REFERENCE
ORDINANCE NO.7-79

Building Security standards for the City of Orange were adopted on January 16, 1979. The Orange Police Department is the enforcing authority for this code section and conducts on-site inspections regarding compliance with the standards.

An “Approved Products” list of materials that meet these standards is available from the Orange Police Department Crime Prevention Bureau or the City of Orange Building Department. Products that are not included on this list must be approved by the Crime Prevention Bureau prior to installation. A site lighting plan of the parking lots, walkways, and required lighting of exterior doors should be submitted to the Crime Prevention Bureau prior to any electrical work being done.

It is recommended that all applicable sections of this code be included on building plans and that all contractors (and sub-contractors) be aware of its requirements. The Crime Prevention Bureau should be notified prior to requesting a final inspection from the Building Department.

Crime Prevention Bureau
(714) 744-7327 or (714) 744-7555

Chapter 15.52

BUILDING SECURITY STANDARDS

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15.52.010 Scope.

A. The provisions of this chapter shall apply to all activities for which a building permit is required by the ordinances of this City. The requirements of this chapter shall apply to existing buildings to the same extent as the requirements of the current Building Code apply to existing buildings.

B. Existing multiple-family dwelling units which, on the effective date of the ordinance codified in this chapter are rented or leased, but thereafter are converted to privately owned family units, including condominiums, shall comply with the special residential building provisions in Section 15.52.080.

C. Any existing structure which converts from its original occupancy group as designated in the current Building Code shall comply with the provisions of this chapter.

D. Any building which requires special type releasing, latching, or locking devices under the provisions of the current Building Code standards enforced by the City of Orange, and/or California Code of Regulations Title 19 of the California Administrative Code, shall be exempt from the provisions of this chapter relating to locking devices of interior and/or exterior doors.

(Ord. 7-79: Prior Code 8700)

15.52.020 Definitions.

Except as otherwise defined in this chapter, all terms used in this chapter, which are defined by applicable State law, together with any amendments thereto, are used in this chapter as so defined, unless from the context hereof it clearly appears that a different meaning is intended:

1. **ACCESS CONTROL** is a physical design concept directed primarily at decreasing criminal accessibility. The term may also be used in reference to mean any mechanism by which a system grants or revokes the right to access some data, or perform some action. The access control mechanism controls what operations the user may or may not make by comparing the user identification to an access control database.
2. **APPROVED** means certified as meeting the requirements of this chapter by the enforcing authority or its authorized agents, or by other officials designated by law to give approval on a particular matter dealt with by the provisions of this chapter with regard to a given material, mode of construction, piece of equipment or device.
3. **ASTRAGAL** is typically used to cover the gap between pairs of doors. The astragal closes the clearance gap for the purpose of either providing a weather seal, ensuring security, preventing sound from leaking in or out of a room, minimizing the passage of light between the doors, or retarding the passage of smoke or flame during a fire.
4. **AUXILIARY LOCKING DEVICE** means a secondary locking system added to the primary locking system to provide additional security.
5. **BOLT** is a metal bar which, when actuated, is projected or thrown either horizontally or vertically into a retaining member, such as a strike plate, to prevent a door or window from moving or opening.
6. **BOLT PROJECTION OR BOLT THROW** is the distance from the edge of the door, at the bolt centerline, to the farthest point on the bolt in the projected position.
7. **BURGLARY RESISTANT GLAZING** means those materials as defined in U.L. Bulletin 972.
8. **COMMERCIAL BUILDING** is a building, or portion thereof, used for a purpose other than a residential dwelling.
9. **COMPONENT**, as distinguished from a part, is a subassembly which combines with other components to make up a total door or window assembly. For example, the primary components of a door assembly include door, lock, hinges, jamb/wall, jamb/strike and wall.
10. **CYLINDER** is the subassembly of a lock containing the cylinder core, tumbler mechanism and the keyway. A double cylinder lock is one which has a key-actuated cylinder on both the exterior and interior of the door.
11. **CYLINDER CORE OR CYLINDER PLUG** is the central part of a cylinder containing the keyway, which is rotated by the key to operate the lock mechanism.
12. **CYLINDER GUARD** is a tapered or flush metal ring or plate surrounding the otherwise exposed portion of a cylinder lock to resist cutting, drilling, prying, pulling, or wrenching with common tools.

13. DEADBOLT is a lock bolt which does not have a spring action, as opposed to a latch bolt which does. The bolt must be actuated by a key or a key and a knob or thumb turn and when projected becomes locked against return by end pressure.
14. DEAD LATCH OR DEADLOCKING LATCH BOLT is a spring actuated latch bolt having a beveled end and incorporating a plunger which, when depressed, automatically locks the projected latch bolt against return by end pressure.
15. DOOR ASSEMBLY is a unit composed of a group of parts or components which make up a closure for an opening to control passageway through a wall. For the purposes of this chapter, a door assembly consists of the following parts: door; hinges; locking device or devices; operation contacts, such as handles, knobs, push plates; miscellaneous hardware and closures; the frame, including the head, threshold and jambs plus the anchorage devices to the surrounding wall and a portion of the surrounding wall extending 36 inches from each side of the jambs and 16 inches above the head.
16. DOOR STOP is that protection along the top and sides of a door jamb which checks the door's swinging action.
17. DOUBLE CYLINDER DEADBOLT is a deadbolt lock which can be activated only by a key on both the interior and the exterior.
18. DWELLING is a building or portion thereof designed exclusively for residential occupancy, including single-family and multiple family dwellings.
19. ENFORCING AUTHORITY means the Chief of Police or his authorized representative.
20. FLUSHBOLT is a manual, key or turn operated metal bolt normally used on inactive door(s) and is attached to the top and bottom of the door and engages in the head and threshold of the frame.
21. FOOT-CANDLE is a unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot.
22. FULLY TEMPERED GLASS means those materials meeting or exceeding ANSI standard Z 97.1 - Safety Glazing.
23. ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) is the recognized technical authority on lighting.
24. JAMB means the vertical members of a door frame to which the door is secured.
25. JAMB/WALL is that component of a door assembly to which a door is attached and secured; the wall and jamb used together are considered a unit.
26. KEY-IN-KNOB is a lockset having the key cylinder and other lock mechanisms contained in the knob.

27. LATCH OR LATCH BOLT is a beveled, spring-actuated bolt which may or may not have a deadlocking device.
28. LOCK (OR LOCKSET) is a keyed device (complete with cylinder, latch or deadbolt mechanism, and trim such as knobs, levers, thumb turns, escutcheons, etc.) for securing a door in a closed position against forced entry. For the purposes of this chapter, a lock does not include the strike plate.
29. LOCKING DEVICE is a part of a window assembly which is intended to prevent movement of the movable sash, which may be the sash lock or sash operator.
30. MULTIPLE FAMILY DWELLING is a building or portion thereof designed for occupancy by two or more families living independently of each other, including hotels, motels, apartments, duplexes and townhomes. (Ord. 7-79)
31. PART, as distinguished from component, is a unit or subassembly which combines with other units to make up a component.
32. PRIMARY LOCKING DEVICE means the single locking system on a door or window unit whose primary function is to prevent unauthorized intrusion.
33. RAIL is the horizontal member of a window or door. A meeting rail is one which mates with a rail of another sash or a framing member of the door or window frame when the sash is in the closed position.
34. SASH is an assembly of stiles, rails, and sometimes, mullions assembled into a single frame which supports the glazing material. A fixed sash is one which is not intended to be opened. A movable sash is intended to be opened.
35. SILL is the lowest horizontal member of a window frame.
36. SINGLE CYLINDER DEADBOLT is a deadbolt lock which is activated from the outside by a key and from the inside by a knob, thumb-turn, lever, or similar mechanism.
37. SINGLE-FAMILY DWELLING is a building designed exclusively for occupancy by one family.
38. SOLID CORE DOOR is a door composed of solid wood or composed of compressed wood equal in strength to solid wood construction.
39. STILE is a vertical framing member of a window or door.
40. STRIKE is a metal plate attached to or mortised into a door or door jamb to receive and to hold a projected latch bolt and/or deadbolt in order to secure the door to the jamb.
41. SWINGING DOOR is a door hinged at the stile or at the head and threshold.

42. U. L. LISTED means certification by Underwriters' Laboratories, Inc. to building materials, electrical wiring and components, storage vessels, and other devices, attesting that the item has been rated according to performance tests; is from a production lot that made use of materials and processes identical to those of comparable items that have passed fire, electrical hazard, and other safety tests; and is subject to the UL reexamination service.
43. WINDOW ASSEMBLY is a unit which includes a window and the anchorage between the window and the wall.
44. WINDOW FRAME is that part of a window which surrounds and supports the sashes and is attached to the surrounding wall. The members include side jambs (vertical), head jamb (upper, horizontal), sill and mullions.

(Ord. 7-79: Prior Code 8701)

15.52.030 Alternate Materials and Methods of Construction.

A. The provisions of this chapter are not intended to prevent the use of any material or method of construction not specifically prescribed by this chapter, provided any such alternate has been approved by the enforcing authority; nor is it the intention of this chapter to exclude any sound method of structural design or analysis not specifically provided for in this chapter. Materials, methods of construction, or structural design limitations provided for in this chapter are to be used unless an exception is granted by the enforcing authority.

B. The enforcing authority may approve any such alternate, provided they find the proposed design, material, and method of work to be for the purpose intended, at least equivalent to that prescribed in this chapter in quality, strength, effectiveness, burglary resistance, durability and safety.

C. In case of any dispute regarding the suitability of alternate materials and methods of construction, the decision of the enforcing authority may be immediately appealed to a Building Safety Board of Appeals. This board shall consist of the Chief Building Official, the Director of Community Development, and the Chief of Police, or any of their authorized representatives.

D. All appeals shall be presented in writing to the Building Safety Board of Appeals. The Board shall adopt reasonable rules and regulations for conducting its hearings and will issue written findings and conclusions within ten (10) days after the submittal of an appeal. Any decision of the Building Safety Board of Appeals may be directly appealed to the City Council.

(Ord. 4-87; Ord. 7-79: Prior Codes 8706, 8707)

15.52.040 Requirements for Locks.

Upon occupancy by the owner or proprietor, each single unit in the same residential project or commercial building development, constructed under the same development plan, shall have locks using combinations which are interchange-free from locks used in all other separate dwellings, proprietorships or similar distinct occupancies within such residential project or commercial building development.

(Ord. 7-79: Prior Code 8710)

15.52.050 Frames, Jambs, Strikes and Hinges.

Except for vehicular access doors, all exterior swinging doors of any residential building and attached garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:

A. Door jambs shall be installed with solid backing in such a manner that no voids exist between the strike side of the jamb and the frame opening for a vertical distance of six (6) inches each side of the strike.

B. In wood framing, horizontal blocking shall be placed between studs at door lock height for three (3) stud spaces each side of the door openings.

C. Door stops on wooden jambs for in-swinging doors shall be of one-piece construction with the jamb. Jambs for all doors shall be constructed or protected so as to prevent violation of the strike.

D. The strike plate for deadbolts on all wood framed doors shall be constructed of minimum sixteen (16) U. S. gauge steel, bronze, or brass and secured to the jamb by a minimum of two screws, which must penetrate at least three (3) inches into solid backing beyond the surface to which the strike is attached.

E. Hinges for out-swinging doors shall be equipped with non-removable hinge pins or a mechanical interlock to preclude removal of the door from the exterior by removing the hinge pins.

(Ord. 7-79: Prior Code 8711)

15.52.060 Windows and Sliding Glass Doors.

The following requirements must be met for windows and sliding glass doors:

A. Except as otherwise provided by this chapter, all operable exterior windows and sliding glass doors shall comply with the tests set forth in this chapter.

B. Louvered windows shall not be used, when a portion of the window is less than 12 feet vertically or 6 feet horizontally from an accessible surface or any adjoining roof, balcony, landing, stair tread, platform, or similar structure.

(Ord. 7-79: Prior Code 8712)

15.52.070 Garage-type Doors.

All garage doors shall conform to the following standards:

A. Wood doors shall have panels a minimum of 5/16 inch in thickness with the locking hardware being attached to the support framing.

B. Aluminum doors shall be a minimum thickness of .0215 inches and riveted together a minimum of eighteen (18) inches on center along the outside seams. There shall be a full width horizontal beam attached to the main door structure which shall meet the pilot, or pedestrian access, door framing within three (3) inches of the strike area of the pilot or pedestrian access door.

C. Fiberglass doors shall have panels a minimum density of six ounces per square foot from the bottom of the door to a height of seven (7) feet. Panels above seven (7) feet and panels in residential structures shall have a density not less than five (5) ounces per square foot.

D. Doors utilizing a cylinder lock shall have a minimum five-pin tumbler operation with the locking bar or bolt extending into the receiving guide a minimum of one (1) inch.

E. Doors that exceed 16 feet in width, but do not exceed 19 feet in width, shall have the following options as to locking devices:

1. Two lock-receiving points, or one garage-door type slide bolt may be used if mounted no higher than 26 inches from the bottom of the door;
2. A single bolt may be used if placed in the center of the door with the locking point located either at the floor or door frame header;
3. Torsion spring counter balance type hardware may be used if such hardware substantially complies with the requirements of this chapter.

F. Except in a residential building, doors secured by electrical operation shall have a keyed switch to open the door when in a closed position, or shall have a signal locking device to open the door.

G. Doors with slide bolt assemblies shall have frames of a minimum of .120 inches in thickness, with a minimum bolt diameter of one-half inch and protrude at least 1-1/2 inches into the receiving guide. A bolt diameter of 3/8 inch may be used in a residential building. The slide bolt shall be attached to the door with non-removable bolts from the outside. Rivets shall not be used to attach slide bolt assemblies.

H. Except in a residential building, padlock(s) used with exterior mounted slide bolt(s) shall have a hardened steel shackle locking both at heel and toe and a minimum five pin tumbler operation with non-removable key when in an unlocked position. Padlock(s) used with interior mounted slide bolt(s) shall have a hardened steel shackle with a minimum four-pin tumbler operation.

(Ord. 7-79: Prior Code 8713)

15.52.080 Special Building Provisions--Residential.

A. Except for vehicular access doors, all exterior swinging doors of any residential building and attached garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:

1. All wood doors shall be of solid core construction with a minimum thickness of 1-3/4 inches, or with panels not less than 9/16 inch thick. Hollow steel doors shall be of a minimum eighteen U. S. gauge and have sufficient reinforcement to maintain the designed thickness of the door when any locking device is installed; such reinforcement being able to restrict collapsing of the door around any locking device.
2. A single or double door shall be equipped with a single cylinder deadbolt lock. The bolt shall have a minimum projection of one (1) inch and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least 3/4 inch into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five (5) pin tumblers, and shall be connected to the inner portion of the lock by connecting screws of at least 1/4 inch in diameter. A dual locking mechanism constructed so that both deadbolt and latch can be retracted by a single action of the inside door knob, or lever, may be substituted, provided it meets all other specifications for locking devices.
3. The inactive leaf of double door(s) shall be equipped with metal flush bolts having a minimum embedment of 5/8 inch into the head and threshold of the door frame.
4. Glazing in exterior doors or within 12 inches of any locking mechanism shall be of fully tempered glass or rated burglary resistant glazing.
5. Except where clear vision panels are installed, all front exterior doors shall be equipped with a minimum 180° wide angle door viewer, not to be mounted more than 58 inches from the bottom of the door.

B. Street numbers and other identifying data shall be displayed as follows:

1. All residential dwellings shall display a street number in a prominent location on the street side of the residence in such a position that the number is easily visible to approaching emergency vehicles. The numerals shall be no less than four (4) inches in height and shall be of a contrasting color to the background to which they are attached. Single family dwellings shall have these numerals illuminated during the hours of darkness.
2. There shall be positioned at each entrance of a multiple family dwelling complex an illuminated diagrammatic representation of the complex which shows the location of the viewer and the unit designations within the complex. In addition, each individual unit within the complex shall display a prominent identification number, not less than

four (4) inches in height, which is easily visible to approaching vehicular and/or pedestrian traffic

C. Lighting in multiple family dwellings shall be as follows:

1. Aisles, passageways and recesses related to and within the building complex shall be illuminated with an intensity of at least fifty-one hundredths (.50) foot-candles at the ground level during the hours of darkness. Lighting devices shall be protected by weather and vandalism resistant covers.
2. Open parking lots and carports shall be provided with a maintained minimum of one foot-candle of light on the parking surface during the hours of darkness. Lighting devices shall be protected by weather and vandalism resistant covers.

D. Garages or any parking areas required to be covered, shall have vehicular access door(s) which conform to the provisions of this chapter.

EXCEPTION: A vehicular access door will not be required when the inside of the garage, including the entire rear wall, is visible from floor level to a height of five (5) feet. Visibility shall constitute an un-obscured line of vision, not to exceed 80 feet, from the window of a dwelling unit to the inside of the garage. This window is to have a clear vision panel with the dimensions not less than three (3) feet either horizontally or vertically, and the window sill to be not more than four feet from the floor. The visibility factor shall apply to those garages and windows of the same multiple family dwelling complex.

(Ord. 7-79: Prior Code 8714)

15.52.090 Special Building Provisions- Non Residential

A. Swinging exterior glass doors, wood or metal doors with glass panels, solid wood or metal doors shall be constructed or protected as follows:

- 1 Wood doors shall be of solid core construction with a minimum thickness of 1 3/4 inches. Wood panel doors with panels less than one-inch-thick shall be covered on the inside with minimum sixteen U.S. gauge sheet steel, or its equivalent, which is to be attached with screws on minimum six-inch centers. Hollow steel doors shall be of a minimum sixteen U. S. gauge and have sufficient reinforcement to maintain the designed thickness of the door when any locking device is installed; such reinforcement being able to restrict collapsing of the door around any locking device.
- 2 Except when double cylinder deadbolts are utilized, glazing in exterior doors or within 48 inches of any door-locking mechanism shall be constructed or protected as follows:
 - a. Fully tempered glass or rated burglary resistant glazing; or
 - b. Iron or steel grills of at least 1/8-inch material with a minimum two-inch mesh secured on the inside of the glazing may be utilized; or

- c. The glazing shall be covered with iron bars of at least one-half inch round or one inch by 1/4-inch flat steel material, spaced not more than five inches apart, secured on the inside of the glazing;
- d. Items b and c shall not interfere with the operation of opening windows if such windows are required to be openable by the current Building Code.

B. All swinging exterior wood and steel doors shall be equipped as follows:

1. A single or double door shall be equipped with a single or double cylinder deadbolt. The bolt shall have a minimum projection of one inch and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least 3/4 inch into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five pin tumblers, and shall be connected to the inner portion of the lock by connecting screws of at least 1/4 inch in diameter. The provisions of the preceding paragraph do not apply where:
 - a. Panic hardware is required; or
 - b. An equivalent device is approved by the enforcing authority.
 - c. A magnetic (MAG) lock may be used if the minimum pulling force is 1600 pounds.
2. Double doors shall be equipped as follows:
 - a. The inactive leaf of double door(s) shall be equipped with metal flush bolts having a minimum embedment of 5/8 inch into the head and threshold of the door frame.
 - b. Double doors shall have an astragal constructed of steel a minimum of .125-inch-thick which will cover the opening between the doors. The astragal shall be a minimum of two inches wide, and extend a minimum of one inch beyond the edge of the door to which it is attached. The astragal shall be attached to the outside of the active door by means of welding or with non-removable bolts spaced apart on not more than ten-inch centers. The door to which such an astragal is attached must be determined by the current Building Code adopted by the enforcing authority.
3. Every single or double exterior door equipped with lever-handled locking mechanism hardware shall have an approved handicapped-accessible threshold complying with provisions of Title 24 of the current Building Code (as amended) beneath the door. The opening between the threshold and the door shall be secured in a manner approved by the Crime Prevention Bureau of the Orange Police Department designed to prevent the passing of rigid materials or mechanical devices between the door and the threshold for the purposes of unlocking the door from the interior side.

C. Aluminum frame swinging doors shall be equipped as follows:

1. The jamb on all aluminum frame swinging doors shall be so constructed or protected to withstand 1600 pounds of pressure in both a vertical distance of three inches and a horizontal distance of one inch each side of the strike, so as to prevent violation of the strike.

2. A single or double door shall be equipped with a single or double cylinder deadbolt with a bolt projection exceeding one inch, or a hook shaped or expanding dog bolt that engages the strike sufficiently to prevent spreading. The deadbolt lock shall have a minimum of five pin tumblers and a solid steel cylinder guard.

D. Panic hardware, whenever required by the current Building Code standards enforced by the City of Orange and/ or California Code of Regulations Title 19, California Administrative Code, shall be installed as follows:

1. Panic hardware shall contain a minimum of two locking points on each door; or
2. On single doors, panic hardware may have one locking point which is not to be located at either the top or bottom rails of the door frame. The door shall have an astragal constructed of steel .125-inch-thick which shall be attached with non-removable bolts to the outside of the door. The astragal shall extend a minimum of six inches vertically above and below the latch of the panic hardware. The astragal shall be a minimum of two inches wide and extend a minimum of one inch beyond the edge of the door to which it is attached.
3. Double doors containing panic hardware shall have an astragal attached to the doors at their meeting point which will close the opening between them, but not interfere with the operation of either door.

E. Horizontal sliding doors shall be equipped with a metal guide track at top and bottom and a cylinder lock and/or padlock with a hardened steel shackle which locks at both heel and toe, and a minimum five pin tumbler operation with non-removable key when in an unlocked position. The bottom track shall be so designed that the door cannot be lifted from the track when the door is in a locked position.

F. In office buildings (multiple occupancy), all entrance doors to individual office suites shall meet the construction and locking requirements for exterior doors. Interior walls dividing the individual suites shall not end at the false ceiling but shall continue to the real roof. Access control systems (card readers) shall be subject to the same security requirements as individual office suites.

G. Windows shall be deemed accessible if less than twelve feet above ground. Accessible windows and all exterior transoms having a pane exceeding 96 square inches in an area with the smallest dimension exceeding six inches and not visible from a public or private vehicular access way shall be protected in the following manner:

1. Fully tempered glass or burglary resistant glazing; or
2. The following window barriers may be used but shall be secured with non-removable bolts:
 - a. Inside or outside iron bars of at least 1/2-inch round or one inch by 1/4-inch flat steel material, spaced not more than five inches apart and securely fastened; or

- b. Inside or outside iron or steel grills of at least 1/8-inch material with not more than a two-inch mesh and securely fastened.
3. If a side or rear window is of the type that can be opened, it shall, where applicable, be secured on the inside with either a slide bar, bolt, crossbar, auxiliary locking device, and/or padlock with hardened steel shackle, a minimum four pin tumbler operation.
4. The protective bars or grills shall not interfere with the operation of opening windows if such windows are required to be open able by the current Building Code.

H. Roof openings shall be equipped as follows:

1. All skylights on the roof of any building or premises used for business purposes shall be provided with:
 - a. Rated burglary resistant glazing and skylight secured to roof using non-removable screws; or
 - b. Iron bars of at least 1/2 inch round or one inch by 1/4-inch flat steel material spaced no more than five inches apart under the skylight and securely fastened; or
 - c. A steel grill of at least 1/8-inch material with a maximum two-inch mesh under the skylight and securely fastened.
2. All hatchway openings on the roof of any building or premises used for business purposes shall be secured as follows:
 - a. If the hatchway is of wooden material, it shall be covered on the inside with at least sixteen U.S. gauge sheet metal, or its equivalent, attached with screws.
 - b. The hatchway shall be secured from the inside with a slide bar or slide bolts.
 - c. Outside hinges on all hatchway openings shall be provided with non-removable pins when using pin-type hinges.
3. All air duct or air vent openings exceeding 96 square inches on the roof or exterior walls of any building or premises used for business purposes shall be secured by covering the same with either of the following:
 - a. Iron bars of at least 1/2 inch round or one inch by 1/4-inch flat steel material spaced no more than five inches apart and securely fastened; or
 - b. Iron or steel grills of at least 1/8-inch material with a maximum two-inch mesh and securely fastened.
 - c. If the barrier is on the outside, it shall be secured with bolts which are non-removable from the exterior.
 - d. The above (a and b) must not interfere with venting requirements creating a potentially hazardous condition to health and safety or conflict with the provisions

of the current Building Code standards enforced by the City of Orange and/ or Title 19, California Administrative Code.

I. Permanently affixed ladders leading to roofs shall be fully enclosed with sheet metal to a height of ten feet. This covering shall be locked against the ladder with a case-hardened hasp, secured with non-removable screws or bolts. Hinges on the cover will be provided with non-removable pins when using pin-type hinges. If a padlock is used, it shall have a hardened steel shackle, locking at both heel and toe, and a minimum five-pin tumbler operation with non-removable key when in an unlocked position.

J. The following standards shall apply to lighting, address identification and parking areas:

1. The address number of every commercial building shall be illuminated during the hours of darkness so that it shall be easily visible from the street. The numerals in these numbers shall be no less than eight inches in height and be of a color contrasting to the background. In addition, any business which affords vehicular access to the rear through any driveway, alleyway or parking lot shall also display the same numbers on the rear of the building.
2. Phone numbers may not be displayed upon a sign (or a building), in order to avoid confusion and minimize clutter (OMC 1736.060 A.1.b).
3. All exterior commercial doors, during the hours of darkness, shall be illuminated with a minimum of one-foot candle of light. The light fixture shall be mounted on the exterior of the building, and all exterior bulbs shall be protected by weather and vandalism resistant cover(s).
4. Open parking lots, and access thereto, providing more than ten parking spaces and for use by the general public, shall be provided with a maintained minimum of one-foot candle of light on the parking surface from dusk until the termination of business every operating day.
5. Open parking lots or parking garages used exclusively for storage of vehicles shall be provided by a maintained minimum of seventy-five one hundredths (.75) foot-candles of light on the parking surface from dusk until termination of business every operating day. Lighting devices shall be protected by weather and vandalism resistant covers.
6. Parking garages, underground walkways and any covered areas for use by the general public shall be provided with a minimum maintained 3-5 foot-candles of light on the parking surface. Lighting devices shall be protected by weather and vandalism resistant covers. If necessary, additional criterion may be required by the enforcing authority to exceed IESNA minimum standards.

K. Elevators.

1. Passenger elevators, the interiors of which are not completely visible when the car door(s) is open, shall have mirrors so placed as to make visible the whole of the elevator interior to prospective passengers outside the elevator; mirrors shall be framed and mounted to minimize the possibility of their accidentally falling or shattering.

2. Elevator emergency stop button shall be so installed and connected as to activate the elevator alarm.

(Ords. 17-89, 7-79: Prior Code 8715)

15.52.100 Tests.

A. It shall be the responsibility of the owner of record, or owner with right of sole possession, or owner, or his designated agent, of a building or structure falling within the provisions of this chapter to provide the enforcing authority with a written specification performance test report indicating that the materials utilized meet the minimum requirements.

B. Whenever there is insufficient evidence of compliance with the provisions of this chapter or evidence that any material or any construction does not conform to the requirements of this chapter, or in order to substantiate claims for alternate materials or methods of construction, the enforcing authority may require tests as proof of compliance to be made at the expense of the owner or his agent by any agency which is approved by the enforcing authority.

C. Specimens shall be representative, and the construction shall be verified by assembly drawings and bill of materials. Two complete sets of manufacturer or fabricator installation instructions and full-size or accurate scale templates for all items and hardware shall be included.

D. Tests for sliding glass doors shall be conducted as follows:

The construction and size of the test door assemblies, jambs and headers, and all hardware components shall be representative of that for which acceptance is desired. The door assembly and mounting in the support fixture shall simulate the rigidity normally provided to a door assembly in a building by the ceiling, floor and walls. Sample doors submitted for testing shall be glazed. Panels shall be closed and locked with the primary locking device only.

Tests shall be performed on the samples in the following order:

TEST A. With the panels in the test position, a concentrated load of eight hundred pounds shall be applied to the vertical pull stile incorporating a locking device, at a point on the stile within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the door. With the load removed, determine if the primary locking device can be unlocked by manipulation as described in Test H. (Ord. 7-79: Prior Code 8720)

TEST B. 1. With panels in the test position, a concentrated load of fifty pounds shall be applied to the vertical pull stile incorporating a locking device, at a point on the stile within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the door while, simultaneously, an additional concentrated load of 200 pounds is applied to the same area of the same stile in a direction perpendicular to the plane of glass toward the interior side of the building. With the load applied, determine if the primary locking device can be unlocked by manipulation as directed in Test H.

2. Repeat Test B.1. substituting 800 pounds for the indicated fifty pounds. Perform the manipulation tests with the load removed.

TEST C. 1. With the panels in the test position, a concentrated load of fifty pounds shall be applied to the vertical pull stile incorporating a locking device, at a point on the stile within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the door while simultaneously, an additional concentrated load of 200 pounds is applied to the same stile in the direction perpendicular to the plane of the glass toward the exterior side of the door. With the load applied, determine if the primary locking device can be unlocked by manipulation as described by Test H.

2. Repeat Test C.1. substituting 800 pounds for the indicated fifty pounds. Perform the manipulation tests with the load removed.

TEST D. With the movable panel lifted upward to its full limit within the confines of the door frame, a concentrated load of 800 pounds shall be applied separately to each vertical pull stile incorporating a locking device, at a point on the stile within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the door. With the load removed, determine if the primary locking device can be unlocked by manipulation as described in Test H.

TEST E. 1. With the movable panel lifted upward to its full limit within the confines of the door frames, a concentrated load of fifty pounds shall be applied to the vertical pull stile incorporating a locking device, at a point on the stile within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the door while, simultaneously, an additional concentrated load of 200 pounds is applied to the same area of the same stile in the direction perpendicular to the plane of the glass toward the interior side of the door. With load applied, determine if the primary locking device can be unlocked by manipulation as described in Test H. (Ord. 7-79: Prior Code 8720)

2. Repeat Test E.1. substituting eight hundred pounds for the indicated fifty pounds. Perform the manipulation tests with the load removed.

TEST F. 1. With the movable panel lifted upward to its full limit within the confines of the door panel, a concentrated load of fifty pounds shall be applied to the vertical stile incorporating a locking device, at a point on the stile within six inches of the locking device, in the direction parallel to the plane of glass that would tend to open the door while, simultaneously, an additional concentrated load of 200 pounds is applied to the same area of the same stile in the direction perpendicular to the plane of the glass toward the exterior side of the door. With the load applied, determine if the primary locking device can be unlocked by manipulation as described in Test H.

2. Repeat Test F.1. substituting 800 pounds for the indicated fifty pounds. Perform the manipulation tests with the load removed.

TEST G. For inside sliding doors, repeat Test D, while simultaneously applying a concentrated load of fifty pounds at the end of the movable bottom rail near the meeting stiles inward. For

outside sliding doors, repeat Test D while simultaneously applying a concentrated load of fifty pounds at the end of the movable bottom rail near the meeting stiles and outward.

TEST H. Lift, push, pull, or otherwise manipulate by hand the door relative to the clearances within the frame while attempting to open the door. This test shall be conducted continuously for five minutes.

Examine the assembly and determine a method and position for inserting a tool through the assembly from the outside so as to contact the primary locking device or the latch. Two different tools shall be used: a knife or spatula with a thin blade approximately 1/32-inch-thick, not more than one-inch-wide and no longer than six inches; and a piece of stiff steel wire with a diameter of approximately 1/16 inch. Determine whether it is possible to insert the wire or manipulate with either of these tools so as to unlock the door within a five-minute time period.

TEST I. 1. With the following tools:

A knife or spatula with a thin blade approximately 1/32-inch-thick, not more than one-inch-wide, and no longer than six inches; and

A straight or Phillips screwdriver with a maximum six-inch shaft. (Ord. 7-79: Prior Code 8720)

Remove from the door assembly all screws, glazing beads, or other mechanical fasteners which can be removed readily from the exterior within a time limit of five minutes. Determine if the primary locking device can be unlocked or entry gained by manipulation as described in Test H.

2. Fixed Panels. Fixed panels shall be fastened in accordance with the manufacturer's instructions. Tests shall be performed in the following order:

TEST A. With the panels in the normal position, a concentrated load of 300 pounds shall be applied at mid span of the fixed jamb stile in the direction parallel to the plane of the glass that would tend to remove the fixed panel from the frame jamb pocket. With the load applied, determine if entry can be gained by manipulation as described in Subsection D.3. of this section, Test H.

TEST B. With the panels in the normal position, a concentrated load of 300 pounds shall be applied at mid span of the fixed jamb stile in the direction parallel to the plane of the glass that would tend to remove the fixed panel from the frame jamb pocket while, simultaneously, an additional concentrated load of 150 pounds is applied at mid span of the fixed panel interlock stile in the direction perpendicular to the plane of the glass which would tend to disengage the meeting stiles. With this load applied determine if entry can be gained by manipulation as described in Subsection D.3. of this section, Test H.

TEST C. Repeat Test A. with the fixed panel lifted upward to its full limit within the confines of the door frame. The lifting force need not exceed 150 pounds at the bottom of the exterior face of the meeting stile. With this load applied, determine if entry can be gained by manipulation as described in Subsection D.3. of this section, Test H.

3. A sliding door assembly shall fail these tests if at any time during or after the test, the sliding door assembly does not remain engaged, intact, and in the closed and locked position by manipulating an exposed component; or if one can enter through displaced or damaged portions.

4. The report shall include the following: Identification of the samples tested; type, size, location and number of locking devices; type, location and number of anchors; type and thickness of glazing material and an indication of whether or not the subject passed the test. The report shall also indicate at what point the assembly fails. The report shall be certified to be a true copy by the testing laboratory and shall be forwarded direct from the laboratory to the enforcing authority. Ord. 7-79: Prior Code 8720)

E. 1. For the purpose of this chapter, windows are classified as follows:

Type A. Window assemblies incorporate one or more sashes that open by sliding in the plane of the wall in which the window is installed;

Type B. Window assemblies incorporate one or more framed sashes which are hinged at or near two corners of the individual sash and open toward the exterior of the wall;

Type C. Window assemblies incorporate one or more sashes which open toward the interior and are hinged at or near two corners of the sash;

Type D. Window assemblies incorporate one or more sashes which are hinged or pivot near the center so that part of the sash opens into the interior wall and part opens toward the exterior.

2. Window assemblies shall be mounted following the manufacturer's installation instructions. Install the window assembly in a test fixture which simulates the wall construction required by Chapter 25 of the Uniform Building Code. The unit shall be fully glazed. The sash shall be closed and locked with the primary locking device only.

3. Tests for Type A window assemblies shall be performed in the following order:

TEST A. With the sliding sash in the normal position, a concentrated load of 200 pounds shall be applied separately to each member incorporating a locking device, at a point on the sash member within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the window. With the load removed, apply the manipulation test described in Subsection D.3. of this section, Test H.

TEST B. With the sliding sash in the normal position, a concentrated load of 200 pounds shall be applied separately to each sash member incorporating a locking device, at a point on the sash member within six inches of the locking device in the direction parallel to the plane of the glass that would tend to open the window while, simultaneously, an additional concentrated load of 75 pounds is applied in the same area of the same sash member in the direction perpendicular to the plane of the glass toward the interior side of the window. With the load removed, apply the manipulation test described in Subsection D.3. of this section, Test H. (Ord. 7-79: Prior Code 8720)

TEST C. With the sliding sash in the normal position, a concentrated load of 200 pounds shall be applied separately to each sash member incorporating a locking device, at a point on the sash member within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the window while, simultaneously, an additional concentrated load of 75 pounds is applied to the same area of the same sash member in the direction perpendicular to the plane of the glass toward the exterior side of the window. With the load removed, apply the manipulation test described in Subsection D.3. of this section, Test H.

TEST D. With the sliding sash lifted upward to the full limit within the confines of the window frame, a concentrated load of 200 pounds shall be applied separately to each sash member incorporating a locking device, at a point on the sash within six inches of the locking device, in the direction parallel to the plane of glass that would tend to open the window. With the load removed, apply the manipulation test described in Subsection D.3. of this section, Test H.

TEST E. With the sliding sash lifted upward to the full limit within the confines of the window frame, a concentrated load of 200 pounds shall be applied separately to each sash member incorporating a locking device, at a point on the sash within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the window, while, simultaneously, an additional concentrated load of 75 pounds is applied to the same area of the same sash member in the direction perpendicular to the plane of the glass towards the interior side of the window. With the load removed, apply the manipulation test described in Subsection D.3. of this section, Test H.

TEST F. With the sliding sash lifted upward to the full limit within the confines of the window frame, a concentrated load of 200 pounds shall be applied separately to each member incorporating a locking device, at a point on the sash member within six inches of the locking device, in the direction parallel to the plane of the glass that would tend to open the window while, simultaneously, an additional concentrated load of 75 pounds is applied to the same area of the same sash member in the direction perpendicular to the plane of the glass toward the exterior side of the window. With the load removed, apply the manipulation test described in Subsection D.3. of this section, Test H.

TEST G. For inside sliding windows, repeat Test F while simultaneously applying a concentrated load of 25 lbs. inward at the end of the movable bottom rail near the meeting stile opposite the lock stile. For outside sliding windows, repeat Test F while simultaneously applying a concentrated load of 25 pounds in the same direction as the perpendicular load inward at the end of the movable bottom rail near the meeting stile opposite the lock stile outward. (Ord. 7-79: Prior Code 8720)

TEST H. Perform the disassembly and manipulation test as described in Subsection D.3. of this section, Test I.

4. The tests for Type B and C window assemblies shall be performed in the following order:

TEST A. With the swinging sash in the normal position, apply a concentrated load of 100 pounds within three inches of each end of the rail or stile which is opposite the hinged side, in the direction perpendicular to the plane of the glass that would tend to open the window.

TEST B. Repeat Test A and simultaneously apply concentrated load of 100 pounds on the outside within one inch of the end of the stile or rail which is opposite the hinged side, in a direction parallel to the plane of the glazing which would tend to disengage the lock.

TEST C. With the swinging sash in the normal position, apply a concentrated load of 200 pounds on the rail or stile containing the locking device within six inches of the lock.

TEST D. Repeat Test B while simultaneously applying Test C. The manipulation test described in Subsection D.3. of this section, Test H, shall be applied in Tests A, B, and D to the sash with the load removed.

TEST E. Perform the disassembly and manipulation test as described in Subsection D.3. of this section, Test I.

5. Tests for Type D window assemblies shall be performed in the following order:

TEST A. With the sash in the normal position, simultaneously apply a concentrated load of 100 pounds within three inches of the ends of each rail or stile which is perpendicular to the pivot sides in the direction that would tend to open the sash. (Ord. 7-79: Prior Code 8720)

TEST B. With the sash in the normal position, apply a concentrated load of 100 pounds on the rail or stile containing the pivot within one inch of the pivot in a direction parallel to the pivots.

TEST C. Repeat Test B, applying the load to the opposite rail or stile.

TEST D. With the sash in the normal position, apply a concentrated load of 200 pounds on the rail or stile containing the locking device within six inches of the lock.

TEST E. Repeat Test D while simultaneously applying the load specified in Test B. Repeat Test D while simultaneously applying the load specified in Test C. The manipulation test described in Subsection D.3. of this section, Test H, shall be applied in Tests A, B, C, and D above to the sash with the load removed.

TEST F. Perform the disassembly and manipulation test as described in Subsection D.3. of this section, Test I.

6. A window assembly shall fail these tests if at any time during or after the tests, the assembly does not remain engaged, intact, and in the closed and locked position by manipulating exposed component; or if one can enter through displaced or damaged portions.

7. The report shall contain a description of the results of the test performed in accordance with the test methods above. The report shall include the following:

Identification of the samples tested; type, location, and number of anchors; type and thickness of glazing material and an indication of whether or not the subject passed the test. The report shall also indicate at what point the assembly fails. The test report shall be certified to be a true copy by the testing laboratory and shall be forwarded direct from the laboratory to the enforcing authority. (Ord. 7-79 Prior Code 8720)

15.52.110 Construction Site Provisions.

All new construction, on sites exceeding one acre in area, shall comply with the following security measures until the utilities have been released by the City:

A. Perimeter lighting shall be installed at a minimum of 150 foot intervals and at a height not less than 15 feet from the ground. The light source used shall have a minimum light output of 2000 lumens, be protected by a vandalism resistant cover, and be lighted during the hours of darkness. Additional lighting shall be required if the construction site exceeds four acres in area. Lighting shall be installed at locations designated by the Chief of Police or his authorized representative.

B. In addition to perimeter lighting described in Subsection A of this section, one of the following shall be used:

1. Fencing, not less than six feet in height, which is designed to preclude human intrusion, shall be installed along the perimeter boundaries of the construction site; or
2. A uniformed security guard, licensed according to Business and Professions Code, Chapter 11, shall be utilized to continually patrol the construction site during the hours when construction work has ceased.

(Ord. 7-79: Prior Code 8730)

15.52.120 Rural and Private Street Lighting Provisions.

All rural and private streets shall have street lighting that complies with City standards which are on file with the Public Works Department. The following alternate provisions may be used, if approved, by the enforcing authority designated hereunder:

A. Alternate Provisions.

1. The mounting height of light fixtures may vary, depending upon the width of the street served.
2. Light fixtures shall be located at all inter-sections, stub-streets, cul-de-sacs, and unusual conditions (i.e., roadway alignment and access points). This includes any location where there are no street light fixtures within a maximum distance of 200 feet of each other along the roadway.
3. Light output from each fixture shall be equivalent to a minimum of 3000 lumens.

B. Alternate Lighting Fixture. A lighting fixture, other than standard City fixtures, may be used, if approved. Approval may be given upon a determination of substantial compliance with reasonable safety and engineering standards.

(Ord. 7-79: Prior Code 8740)

15.52.130 Mechanical Parking Gates--Emergency Override Control Devices Required.

Except as otherwise provided in this section, owners or operators of controlled vehicle parking areas and private streets which use mechanical parking gates to control motor vehicle ingress or egress shall install and maintain an emergency override control device on each gate. Said device shall be a master key-operated type switch which shall comply with City of Orange standards. Provisions of this Section shall not apply to a vehicle parking area or Private Street when emergency or other public service vehicles have immediate access to said parking area or Private Street without delay. Except as otherwise provided in this section, emergency override control devices shall be required for all said mechanical parking gates, whether or not said gates were installed before or after the effective date of this ordinance. Access control using radio transmitter entry systems may be used, but are not meant to replace a key-operated switch.

(Ord. 10-81)

15.52.140 Severability.

A. This chapter shall be deemed supplemental to any local, state or federal laws, regulations or codes dealing with life safety factors.

B. If any subsection, subdivision, sentence, clause, phrase, or portion of this chapter, or the application thereof to any person, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portion of the chapter or its application to other persons.

(Ord. 7-79: Prior Code 8705)

15.52.150 Enforcement.

The Chief of Police, or his authorized representatives, are empowered and directed to administer and enforce the provisions of this chapter. Plans and specifications for any proposed construction must, however be approved by the Director of Community Development, or his authorized representatives, in accordance with the provisions of this chapter. No Building Permit is to be finally approved unless the applicant has satisfied the enforcing authority that all provisions of this chapter have been met. (Ords. 4-87; 7-79: Prior Code 8702)

15.52.160 Violation--Penalty.

A. It is unlawful for any person, firm or corporation to erect, construct, enlarge, alter, move, improve, convert, or equip, use, occupy or maintain any building or structure in the City, or cause same to be done, contrary to or in violation of any of the provisions of this chapter.

B. Any person, firm or corporation violating any of the provisions of this chapter is guilty of a misdemeanor and shall be punishable for each offense, by a fine of not more than \$1,000, or by confinement in jail for not more than six (6) months, or by both fine and confinement in jail.

(Ord. 7-79: Prior Code 8704)