

IEBC - Chapter 8, Alterations – Level 3 - Points to Note

Section 801 - General

801.1 Scope. Level 2 alterations as described in Section 405 shall comply with the requirements of this chapter.

Section 801.2 Compliance

...work shall include the requirements of Chapters 6 and 7...703, 704 and 705 shall apply within all work areas whether or not they include exits and corr shared by more than one tenant regardless of the occp load.

Exception, bldgs where reconfig of space...result of compliance with the accessibility reqmt's of 605.2, not be req'd to comply with this chapter.

Section 802 Special Use and Occupancy

Section 802.1 High-rise buildings. Any building having occ flrs more than 75' above the lowest level of FD vehicle access shall comply with the reqmt's of 802.1.1 and 802.1.2.

Section 802.1.1 Recalculating air or exhaust systems

...greater than 15,000 cfm...smoke and heat det I/A/W IMC req'd

Section 802.1.2 Elevators

...exist'g elev for public use...travel dist greater than 25 feet and intended for emerg personnel shall be provided with emerg operation I/A/W ASME A17.3...new elev provide Phasel and Phase II

Section 802.2 Boiler and furnace equipment room

...1-hour const enclosure, day nursery, children shelter, res child care or similar with younger than 2 ½ or I-2, shelter, group homes, rooming or boarding, hotel and multi-family

Exceptions

- 1. ...low pressure type installed per manuf spec*
- 2. ...furnace and boiler equip of R-3 w/ 200,000Btu or less*
- 3. ...sprinkler protected furnace rooms*

Section 803 Building Elements and Materials

Section 803.1 Existing shafts and vertical openings...exist'g stairways part of means of egress, enclose I/A/W 703.2.1 from highest work area to exit discharge

Section 803.2 Fire partitions in Group R-3

...fire separation I/A/W 803.2.1

Section 803.2.1 Separation required

*...walls sep dwelling units not continuous from foundation to roof...shall provide cont fire separation consist with exist'g or comply with new reqmt's...all work to be performed on work area side
Exception...alterations not involving walls or ceiling exposed to structure*

Section 803.3 Interior finish

...shall comply with 703.4 from work area to discharge

Section 804 Fire Protection

Section 804.1 Automatic sprinkler systems. Automatic sprinkler systems in accordance with Section 704.2 shall be provided in all work areas.

Section 804.1.1 High-rise buildings

...where sufficient water supply...work area...where more than 50%, then in specified areas

Section 804.1.2 Rubbish and linen chutes

...located in work area...I/A/W IBC for new construction and sufficient water supply

Section 804.2 Fire alarm and detection systems

...ref 704.4.1 and 704.4.3...throughout the building I/A/W IBC

Section 804.2.1 Manual fire alarm systems

...throughout the work area I/A/W IBC

Exceptions

- 1. ...tenant space outside the work area*
- 2. ...visual not req'd except where existing is upgraded or replaced or new installed*

Section 804.2.2 Automatic fire detection

...throughout work area where req'd by IBC

Section 805 Means of Egress

Section 805.1 General. The means of egress shall comply with the requirements of Section 705 except as specifically required in Section 805.2 and 805.3.

Section 805.2 Means of egress lighting

...from work area to discharge provide artificial light I/A/W IBC

Section 805.3 Exit signs

...from work area to discharge provide exit signs I/A/W IBC

Section 806.1 Accessibility

...ref Section 605

Section 807.1 Structural

Section 807.1 General. Where buildings are undergoing Level 3 alterations including structural alterations, the provisions of this section shall apply.

Section 807.2 Reduction of strength

*...alterations shall not reduce structural strength or stability
Exception...structural strength or stability not below IBC levels*

Section 807.3 New structural members

...I/A/W IBC

Section 807.4 Minimum design loads

...min design loads that do not support additional loads, shall be loads applicable at the time the bldg was constructed

Section 807.5 Structural alterations

...Level 3 alteration, increase base shear by more than 10% or decrease seismic base shear capacity by more than 10%...shall comply with this section. Based on conditions at time of original construction

Exceptions

- 1. ...group R not more than 5 units, complying with light-frame construction I/A/W IBC*
- 2. ...lowest story only and change of use (Ch 9) N/A...lateral-force-resisting in and below only*
- 3. ...increase since original...permitted to calculate relative to increase*

Section 807.5.1 Evaluation and analysis

...engineering evaluation and analysis establishing structural adequacy of altered structure req'd

Section 807.5.2 Substantial structural alteration

...more than 30% within 12 months...evaluation and analysis I/A/W IBC...

Section 807.5.3 Limited structural alteration

...not more than 30% in 12 months...evaluation shall demonstrate that altered complies with original construction

Section 807.6 Additional vertical loads

...where gravity loads increase on floor or roof...all affected members I/A/W IBC

Exceptions

- 1. ...stress not increased by more than 5%*
- 2. ...group R not more than 5 units, complying with light-frame construction I/A/W IBC*

Section 807.7 Voluntary lateral-force-resisting system alterations

...alt and additions of new struc members initiated to increase strength not req'd by other sections...shall not be req'd to be designed I/A/W IBC provided eng analysis shows...

- 1. ...capacity of exist'g not reduced*
- 2. ...not increased more than 10%*
- 3. ...struct elements detail and connected I/A/W IBC*
- 4. ...new nonstruct detail and connected I/A/W IBC*
- 5. ...dangerous condition not created*

Section 808 Energy Conservation

808.1 Minimum requirements. Level 3 alterations to existing buildings or structures are permitted without requiring the entire building or structure to comply with the energy ...