

Building Code Narrative

TO	Team	FROM	Loren Johnson
ORGANIZATION	Legat Architects	RE	Code Narrative
PROJECT TITLE	Rogers Elementary Annex	PROJECT NO.	[PROJECT_NUMBER]
CC		DATE	10.03.2018

Chicago Building Code

1. 13-56-100 Occupancy Classification
 - a. Class C, Assembly Units
 - b. Class C-3, Schools
 - c. Type 1A Schools - kindergarten and elementary schools
2. Construction Type
 - a. Type 1B, Fire Resistive
3. Fire resistance requirements
 - a. Subject to the provisions of Chapter 15-8, combustible material may be used in buildings of fire- resistive construction for the following purposes: Doors, door frames and bucks; *Windows and window frames; Interior trim, including grounds and furring; Finished flooring and sleepers; Frames, platforms and aprons of exterior show windows at street level; Handrails; Interior wall and ceiling finishes; Roof insulation; Exterior wall finishes, when in compliance with Sections 15-8-080 through 15-8-086.*
 - b. Exterior Bearing Walls: 3 hours
 - i. 2 hours: when exterior walls face a street, public open space, yard or court not less than 30 feet in width
 - c. Exterior Nonbearing Wall, Outside exposure: 2 hours
 - d. Exterior Nonbearing Wall, Inside exposure: 2 hours
 - e. Interior Bearing Wall: 3 hours
 - f. Interior Nonbearing Walls/Partitions: 1 hour
 - i. At locations which require a higher rating: dependent on use
 - g. Exterior Columns: 3 hours
 - i. None: when building has automatic sprinkler system as defined in Chapter 15-16 & does not exceed 55 feet in height, or if column is outside building envelope, faces a public way of not less than 30 feet in width, and does not support exterior floors or walkway intended for normal human occupancy
 - h. Interior Columns
 - i.
 - i. Beams, Girders, Trusses
 - i.
 - j. Floor Construction

- i.
 - k. Roof Construction
 - i.
- 4. 13-84-020 Capacity of Schools
 - a. The total capacity of a school shall be determined in accordance with the occupancy content factors established in Section 13-56-310, except that rooms not used or used only occasionally by students shall not be included in computing each total capacity. Such rooms and spaces include the following:
 - i. Assembly rooms and gymnasiums;
 - ii. Cafeterias and lunchrooms;
 - iii. Locker, toilet and storage rooms;
 - iv. Corridors and other circulation space;
 - v. Service and equipment rooms.
- 5. 13-56-310 Assembly units and open air assembly units – Occupancy content.
 - a. For assembly units and open air assembly units, the occupancy content shall be based on the capacity of the rooms or spaces used for assembly purposes and shall be determined as follows:
 - b. (a) In rooms or spaces with fixed seating, the occupancy content shall be the actual number of seats provided. When no divisions between seats are provided, fixed seating shall be computed at 18 inches per person.
 - c. (b) In rooms or spaces without fixed seating, the occupancy content shall be determined by the dividing of the net floor area (excluding the areas occupied by elevators, toilet rooms, stairways, other shaft enclosures, and by permanent fixtures such as bowling alleys, bars, cigar counters, exit facilities, entrance vestibules, lunch counters and serving spaces for same, etc.) by the floor area per person established in the following table:
 - d. Occupancy Floor Area Per Person
 - e. (1) School classrooms (other than open plan schools) and recreation rooms 20 sq. ft.
 - f. (2) Open plan schools, school laboratories and shops 30 sq. ft.
 - g. (3) Museums, libraries and similar uses 20 sq. ft.
 - h. (4) Restaurants 15 sq. ft.
 - 6. (5) Other assembly uses 6 sq. ft.
 - 7. (6) Exhibition areas 20 sq. ft.
 - 8. (7) Day care center – Class I 35 sq. ft.
- 9. 13-56-310 Occupant Load
 - a. In rooms or spaces without fixed seating, the occupancy content shall be determined by the dividing of the net floor area (excluding the areas occupied by elevators, toilet rooms, stairways, other shaft enclosures, and by permanent fixtures such as bowling alleys, bars, cigar counters, exit facilities, entrance vestibules, lunch counters and serving spaces for same, etc.) by the floor area per person established in the following:

- i. School classrooms (other than open plan schools) and recreation rooms: 20 sq. ft./person
 - b. Occupant Load Calculation
 - i. First Floor: $2,953 \text{ NSF} / 20 \text{ SF/person} = 148 \text{ people}$
 - ii. Second Floor: $7,608 \text{ NSF} / 20 \text{ SF/person} = 381 \text{ people}$
 - iii. Total Occupant Load: **529 people**
- 10. 13-84-030 Frontage requirements
 - a. Every assembly unit shall have frontage upon one or more open spaces consisting of streets not less than 30 feet wide or public alleys or other open spaces not less than ten feet wide which lead directly to a street.
 - i. Type I schools – 501 feet or less – Street, one side – Street or open space, one side
 - ii. Type I schools – 501 to 1000 – Street, one side – Street or open space, two sides
 - iii. Type I schools – 1001 to 2500 – Street, two sides – Street or open space, one sides
- 11. 13-84-050 Special enclosures and separations
 - a. The floor construction and enclosing partitions of assembly rooms having a capacity exceeding 300 persons shall be of construction providing fire resistance of not less than **two hours. (Dining Room)**
 - b. The floor construction and enclosing partitions of assembly rooms having a capacity not exceeding 300 persons shall be of construction providing fire resistance of not less than **one hour.**
 - c. Partitions, floor constructions and ceiling construction enclosing all public corridors of assembly units shall be of construction providing fire resistance of not less than **one hour.**
- 12. 13-84-140 Planning requirements for Type I schools.
 - a. Every Type I school shall comply with the following planning requirements:
 - b. Basement Rooms. No floor of a classroom or study room shall be located more than two feet below the building grade adjacent to such rooms except rooms used for shops and other vocation classes.
 - c. Fire Department Access Requirements. Excluding exterior wall areas of auditoriums, assembly halls, field houses, gymnasiums, swimming pools and theater areas, **exterior wall areas in Type I schools which exceed 100 linear feet without windows, doorways, or other openings shall be provided with fire department access panels at each floor level spaced at intervals not exceeding 50 feet. Such access panels shall be not less than 32 inches wide and 48 inches high with the bottom of the access panel not over 32 inches above the floor.** Panels shall be constructed of materials and installed in such a manner to be readily removed by the fire department. Their construction and installation shall be approved by the fire commissioner.
- 13. 13-160-140 Maximum Travel Distance
 - a. Assembly units (except open plan schools):

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- i. Grade and non-grade floors: **150 ft.** (No travel distance increases are permitted due to 13-160-150)
- 14. 13-160-160 Maximum distance from end of corridor.
 - a. The maximum travel distance to an exit from the end of a corridor shall be not more than 50 percent of the travel distance permitted in Sections 13-160-140 and 13-160-150, **except that in Type I schools, such distance shall not exceed 20 feet**, and in the case of nursing homes and sheltered care facilities as defined in Section 13-4-010 and as further defined by the rules and regulations promulgated by the board of health under the authority, as applicable, of Section 4-6-090 , Section 4-6-100 or Section 4-6-110 , there shall be an exit at the end of each corridor.
- 15. 13-160-040 Exit Types Above or below grade
 - a. Exits from a story above or below grade shall consist of interior stairways except as otherwise required in this section.
- 16. 13-160-190 Unit of Exit Width
 - a. 22 inches (add 12 inches for ½ unit)
- 17. 13-84-180 Width of exits
 - a. Capacity of stairs and other vertical exits: **100 persons per unit of exit width**
 - b. Capacity of doorways, corridors, and horizontal exit connections: **115 persons per unit of exit width**
 - c. Exit Width Calculation:
 - i.
- 18. Loading Berths
 - a.
- 19. Parking Requirements
 - a.

ATTACHMENTS

None