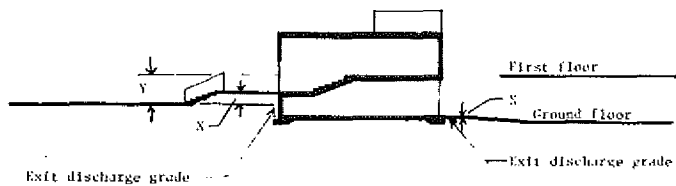
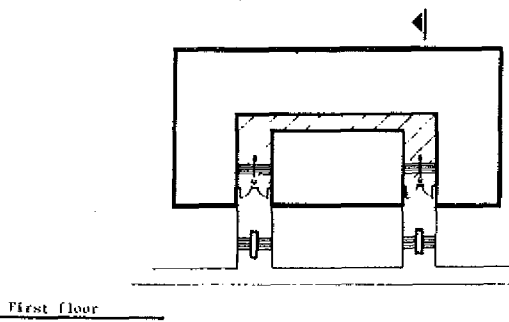
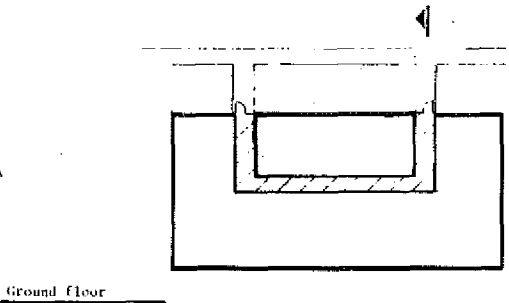


A-51.02 (14) DETERMINATION OF NUMBER OF STORIES. The following illustrations are provided to give visual aid to this rule and the definition of s. Ind 51.01 (121) Stories, Number of.



Exit discharge grade
Note: X = 3'-0" (maximum)
Y = 3'-0" (maximum)



Appendix A

A-51.03 (5) (a) EXTERIOR MASONRY CONSTRUCTION. The following Figures 1, 2, 3, 4, 5A and 5B illustrate typical details for various wall construction alternatives, which satisfy the intent of this rule for Type 5—Exterior Masonry Construction.

This Figure illustrates typical details for an Exterior Wall. The same details also are applicable to Interior Walls.

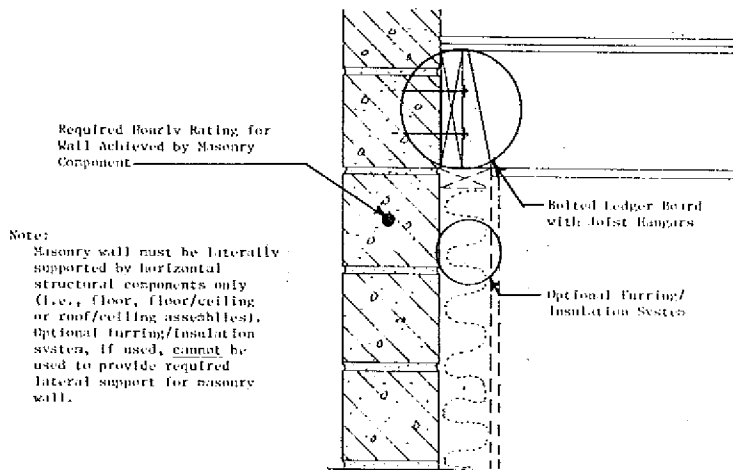


FIGURE 1
SINGLE WYTHE MASONRY WALL
GARDING (OPTIONAL)

This Figure Illustrates Typical Details for an Exterior Wall. The Same Details also are Applicable to Interior Walls.

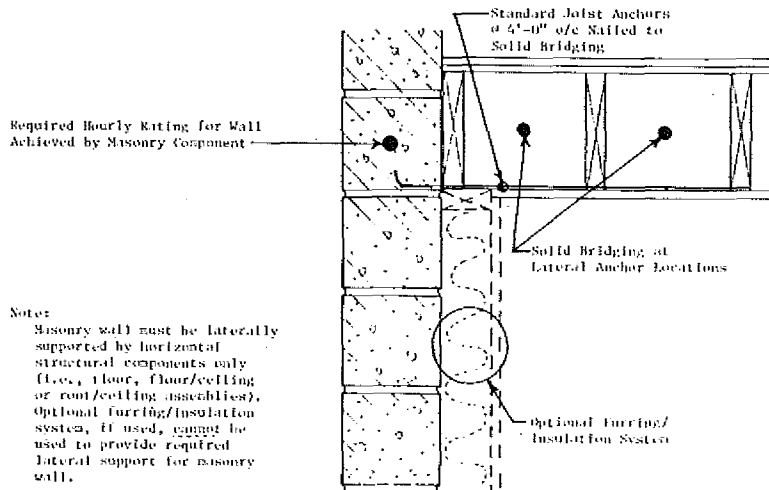


FIGURE 2
STRIP-WYTHE MASONRY WALL
(LOAD-BEARING CONDITION)

This Figure Illustrates Typical Details for an Exterior Wall. The Same Details also are Applicable to Interior Walls.

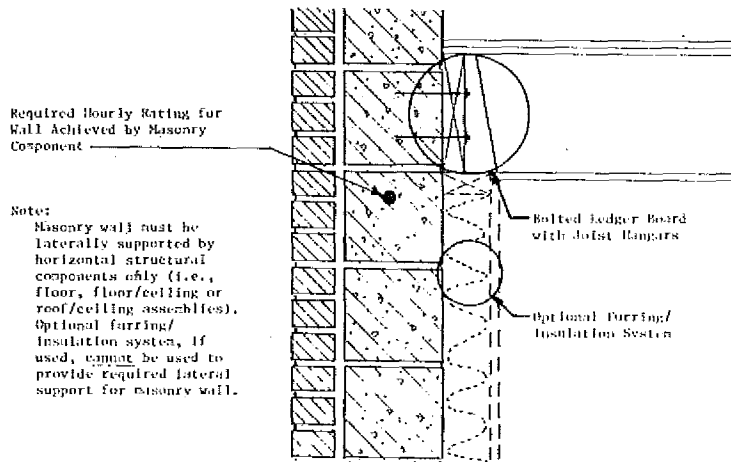


FIGURE 3
MULTI-LEAF MASONRY WALL
(BEARING CONDITION)

This Figure illustrates typical details for an Exterior Wall. The same details also are applicable to Interior Walls.

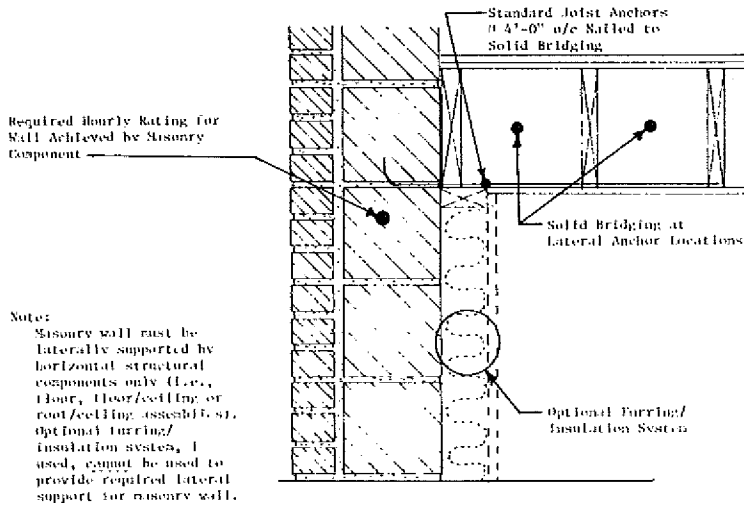


FIGURE 4
MULTI-WYTHE MASONRY WALL
(NON-BEARING CONDITION)

This Figure illustrates typical details for an Exterior Wall. The same details are also applicable to Interior Walls.

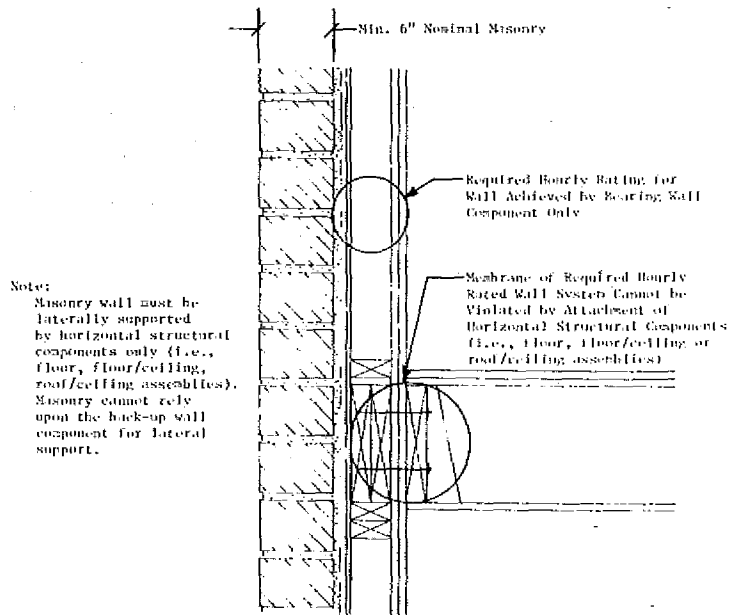


FIGURE 5A
COMBINATION MASONRY/FRAME WALL
(BEARING AND NON-BEARING CONDITION)

This Figure illustrates typical details for an Exterior Wall. The same details also are applicable to Interior Walls.

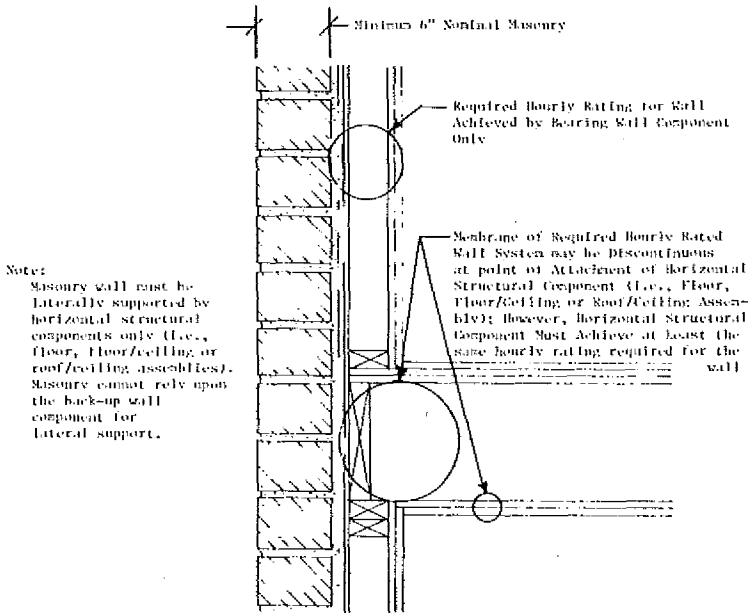


FIGURE 9B
COMBINATION MASONRY/FRAME WALL
(CLADDING AND DRIP-PEDIMENT CONDITION)

A-51.15 (6) EXAMPLE TO DETERMINE TOTAL AGGREGATE EXIT WIDTH.

5	300
4	400
3	500
2	200
1	500
B ₁	100
B ₂	300
B ₃	400

Type No. 1 sprinklered construction.

Aggregate exit width required from a floor into the stairwell is 30 inches per 100 people on that floor; i.e.,

5th floor to stairwell = $1 \times 30 = 90''$ 4th floor to stairwell = $4 \times 30 = 120''$ 3rd floor to stairwell = $5 \times 30 = 150''$

etc.

Total stair width required:

5th to 4th - 300 persons (100%) $\times 30''/100$ persons = 90''4th to 3rd - (400 persons (100%) + 300 persons (50%)) $30''/100$ persons = 165''3rd to 2nd - (500 persons (100%) + 400 persons (50%) + 300 persons (25%)) $30''/100$ persons = 232.5''2nd to 1st - (200 persons (100%) + 500 persons (50%) + 400 persons (25%)) $30''/100$ persons = 165'' (Use 232.5'')1st to exterior - (600 persons (100%) + (200 persons + 100 persons) (50%) + (500 persons + 300 persons) (25%)) $30''/100$ persons = 285''B₁ to 1st - (100 persons (100%) + 300 persons (50%) + 400 persons (25%)) $30''/100$ persons = 195'' (Use 150'')B₂ to B₁ - (300 persons (100%) + 400 persons (50%)) $30''/100$ persons = 150''B₃ to B₂ - 400 persons (100%) $\times 30''/100$ persons = 120''Stair width required from B₁ to 1 is 150'' as stair cannot decrease in width along path to exit [Ind 51.16 (2) (c)].

A-51.22 FIRE EXTINGUISHERS. The following information is taken from the National Fire Protection Association Standard #10-1978 - Portable Fire Extinguishers. The information is provided to assist building designers in determining the number, type and location of fire extinguishers needed to comply with the provisions of the standard.

1-3 Definitions.

1-3.1 The basic types of fires are Classes A, B, C and D as defined in the following subsections.

1-3.1.1 Class A fires are fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.

1-3.1.2 Class B fires are fires in flammable liquids, oils, greases, tars, oil base paints, lacquers, and flammable gases.

1-3.1.3 Class C fires are fires which involve energized electrical equipment where the electrical nonconductivity of the extinguishing media is of importance. (When electrical equipment is de-energized, extinguishers for Class A or B fires may be used safely.)

1-3.1.4 Class D fires are fires in combustible metals, such as magnesium, titanium, zirconium, sodium, lithium, and potassium.

1-3.3 Classification of Hazards

1-3.3.1 Light (Low) Hazard. Where the amount of combustibles or flammable liquids present is such that fires of small size may be expected. These may include offices, school-rooms, churches, assembly halls, telephone exchanges, etc.

1-3.3.2 Ordinary (Moderate) Hazards. Where the amount of combustibles or flammable liquids present is such that fires of moderate size may be expected. These may include mercantile storage and display, auto showrooms, parking garages, light manufacturing, warehouses not classified as extra hazard, school shop areas, etc.

1-3.3.3 Extra (High) Hazards. Where the amount of combustibles or flammable liquids present is such that fires of severe magnitude may be expected. These may include wood-working, auto repair, aircraft servicing, warehouses with high-piled (over 15 ft. in solid piles, over 12 ft. in piles that contain horizontal channels) combustibles, and processes such as flammable liquid handling, painting, dropping, etc.

3-2 Fire Extinguisher Size and Placement for Class A Hazards.

3-2.1 Minimal sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of Table 3-2.1 except as modified by 3-2.3. Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in Table 3-2.1, except as modified by 3-2.3.

Table 3-2.1

	Light (Low) Hazard Occupancy	Ordinary (Moderate) Hazard Occupancy	Extra (High) Hazard Occupancy
Minimum extinguisher rating	1A	2A	2A
Maximum floor area per unit of A	3000 sq ft	1500 sq ft	1000 sq ft
Maximum floor area per extinguisher	11250 sq ft*	11250 sq ft*	11250 sq ft*
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

*11250 sq. ft. is considered a practical limit.

Note: Certain smaller extinguishers which are charged with multi-purpose dry chemical or Halon 1211 are rated on Class B and Class C fires, but have insufficient effectiveness to earn the minimum 1-A rating even though they have value in extinguishing smaller Class A fires. They shall not be used to meet the requirements of 3-2.1.

3-2.2 Up to one-half of the complement of extinguishers as specified in Table 3-2.1 may be replaced by uniformly spaced 1½ inch hose stations for use by the occupants of the building. The location of hose stations and the placement of fire extinguishers shall be in such a manner that the hose stations do not replace more than every other extinguisher.

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Appendix A

3-2.3 Where the floor area of a building is less than that specified in Table 3-2.1, at least one extinguisher of the minimum size recommended shall be provided.

3-2.4 The protection requirements may be fulfilled with extinguishers of higher rating provided the travel distance to such larger extinguishers shall not exceed 75 feet.

3-2.5 For Class A extinguishers rated under the rating classification system used prior to 1955, their equivalency shall be in accordance with Table 3-2.5.

Table 3-2.5

All Water & Loaded Stream Types	Pre-1955 Rating	Equivalency
1½ to 1¾ gal	A-2	1-A
2½ gal	A-1	2-A
4 gal	A-1	3-A
5 gal	A-1	4-A
17 gal	A	10-A
33 gal	A	20-A

3-3 Fire Extinguisher Size and Placement for Class B Fires Other than for Fires in Flammable Liquids of Appreciable Depth.

3-3.1 Minimal sizes of fire extinguishers for the listed grades of hazard shall be provided on the basis of Table 3-3.1.1. Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in the table used.

Exception: Extinguishers of lesser rating, desired for small specific hazards within the general hazard area, may be used, but shall not be considered as fulfilling any part of the requirements of Table 3-3.1.1.

Table 3-3.1.1

Type of Hazard	Basic Minimum Extinguisher	Maximum Travel Distance to	
	Rating	Extinguishers (Ft.)	(m)
Light (low)	5B	30	9.15
	10B	50	15.25
Ordinary (moderate)	10B	30	9.15
	20B	50	15.25
Extra (high)	40B	30	9.15
	80B	50	15.25

Note: The specified ratings do not imply that fires of the magnitudes indicated by these ratings will occur, but rather to give the operators more time and agent to handle difficult spill fires that may occur.

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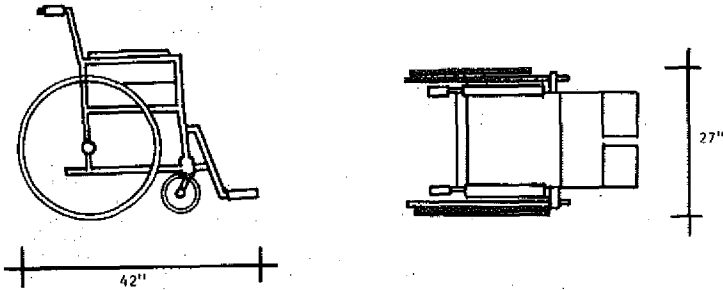
A52.015 FIRE CLASSIFICATIONS. The following information is provided to assist building owners and designers in determining the fire classifications of typical building usage or occupancy:

FIRE CLASSIFICATION	DESCRIPTION OF FUEL LOAD	TYPICAL EXAMPLES
Low Hazard	Buildings or structures used for the manufacture or storage of noncombustible or low hazard materials, that do not ordinarily burn rapidly, such as but not limited to asbestos, chalk, crayons, food products, glass, ivory, metals, porcelain, pottery, talc and soapstones.	Offices; welding areas containing slight combustibles; schoolrooms; churches; assembly halls; telephone exchanges; and similar occupancies with slight combustibles.
Moderate Hazard	Buildings and structures used for the manufacture or storage of moderate hazard materials, which are likely to burn with moderate rapidity, but which do not produce either poisonous gases, fumes or explosives, such as but not limited to: cloth, burlap and paper bags; bamboo and rattan; baskets; canvas and leather belting; books and paper in rolls or packs; boots and shoes; buttons; cardboard and cardboard boxes; clothing; cordage; furniture; furs; glue, mucilage, paste and size; linoleum; silk; soap; sugar; tobacco, cigars, cigarettes and snuff; and wax candles.	Mercantile storage and display; auto showrooms; light manufacturing; warehouses not classified as low or high hazard; school shop areas; leather enameling or japanning operations; livestock shelters; lumber yards; motor vehicle repair shops; petroleum warehouses for storage of lubricating oils with a flash point of 300° F. or higher; photo engraving operations; public garages; stables; and upholstering and mattress manufacturing.
High Hazard	Buildings and structures used for the storage, manufacture or processing of highly combustible or explosive products or materials, which are likely to burn with extreme rapidity or which may produce poisonous fumes or explosions; highly corrosive, toxic or noxious alkalies, acids or other liquids or chemicals producing flame, fumes, poisonous, irritant or corrosive gases; materials producing explosive mixtures or dusts or which result in the division of matter into fine particles subject to spontaneous ignition.	Woodworking; aircraft servicing; warehouses with material piled 15 feet or higher in solid piles or 12 feet or higher in piles with horizontal channels; ammunition, explosive and firework manufacture; artificial flowers and synthetic leather manufacture; acetylene gas and gases under pressure of 15 pounds or more and in quantities of greater than 2500 cubic feet; celluloid and celluloid products; cereal; feed, flour and grist mills; cotton batting and waste processes; cotton apparel making; dry cleaning establishments using or storing more than 3 gallons of gasoline or flammable liquids with a flash point under 100° F. or more than 60 gallons of flammable liquids with a flash point between 100° F. and 140° F.; feather renovating; fruit ripening processes; grain elevators; hydrogenation processes; industries employing solids or substances which ignite or produce flammable gases on contact with water; kerosene, fuel, lubricating oils and combustible liquids with a flash point over 200° F.; match manufacture and storage; metal enameling and japanning; nitrocellulose film exchanges and laboratories; paint and varnish manufacture; petroleum manufacture; processing of paper or cardboard in loose form; pyroxylin product storage and manufacture; and smoke houses.

Appendix A

A-52.04 REQUIREMENTS FOR BARRIER-FREE ENVIRONMENTS. The following illustrations are provided to give the designer visual aids for making facilities accessible.

WHEELCHAIR DIMENSIONS



TURNING SPACE

