Chicago Plan Review Manual

Excerpts for use with *Basics of the 2019 Chicago Construction Codes* Training
July 24, 2020

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Section 602.2—Type I Construction

Buildings of Type I construction are built of noncombustible materials. All structural elements must be protected (have a fire-resistance rating) (see Figure 7).

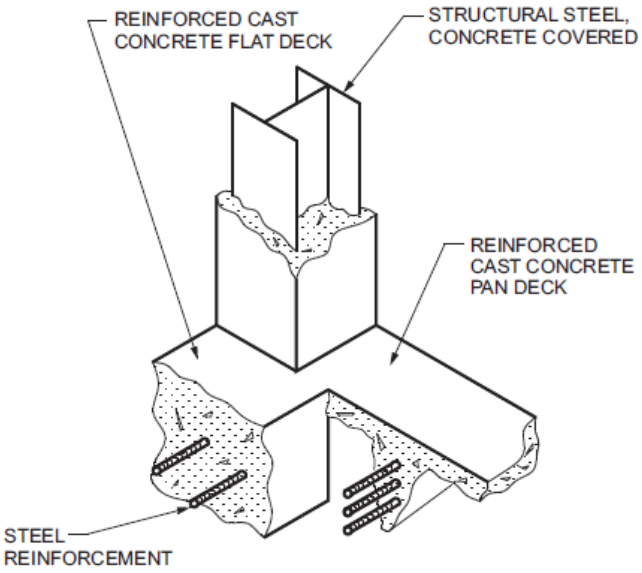


Figure 7: Type I Construction

Fire-Resistance Ratings in Table 601		
	Type IA	**Type IB**
Primary Structural Frame	3	2
Exterior Bearing Walls	3	2*
Interior Bearing Walls	3	2
Floor Construction	2	2
Roof Construction	1.5	1

*not less than the rating based on fire separation distance (see Table 602)

Note: For high-rise buildings up to 400 feet in building height, fire-resistance ratings based on construction type may be reduced based on the additional active life-safety systems that are required.

CODE BOOK

CBC 403.2.1

Section 602.3—Type II Construction

Buildings of Type II construction are built of noncombustible materials.

Type IIA is protected (*left*); Type IIB is unprotected (*right*) (see Figure 8).

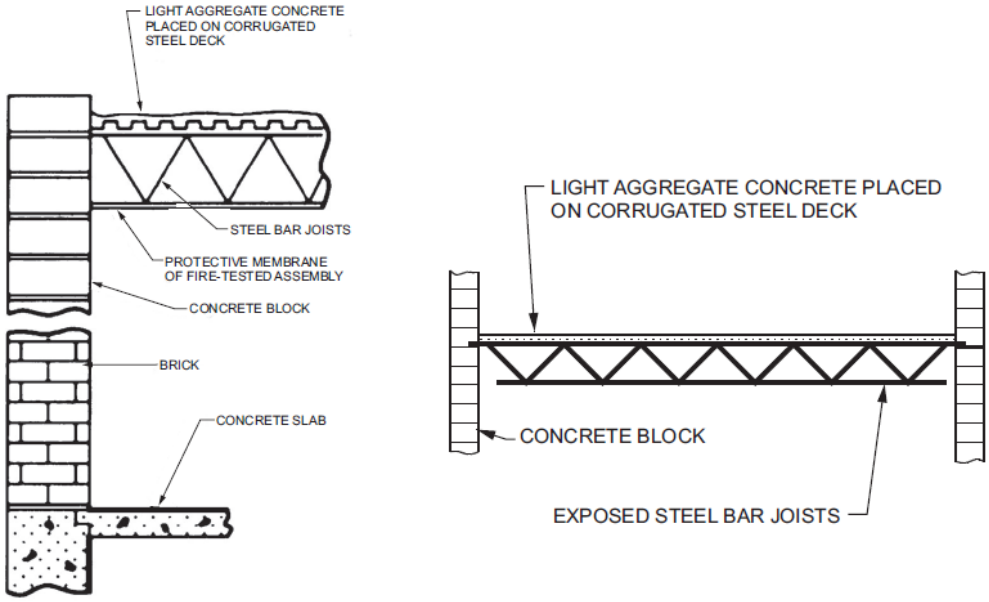


Figure 8: Type II (Noncombustible) Construction

Fire-Resistance Ratings in Table 601		
	Type IIA	**Type IIB**
Primary Structural Frame	1	0
Exterior Bearing Walls	1*	0*
Interior Bearing Walls	1	0
Floor Construction	1	0
Roof Construction	1	0

*not less than the rating based on fire separation distance (see Table 602)

Section 602.4—Type III Construction

In buildings of Type III construction, exterior walls are constructed of noncombustible materials and interior structural elements may be of wood or other combustible materials (see Figure 9).

Type IIIA is protected; Type IIIB is unprotected.

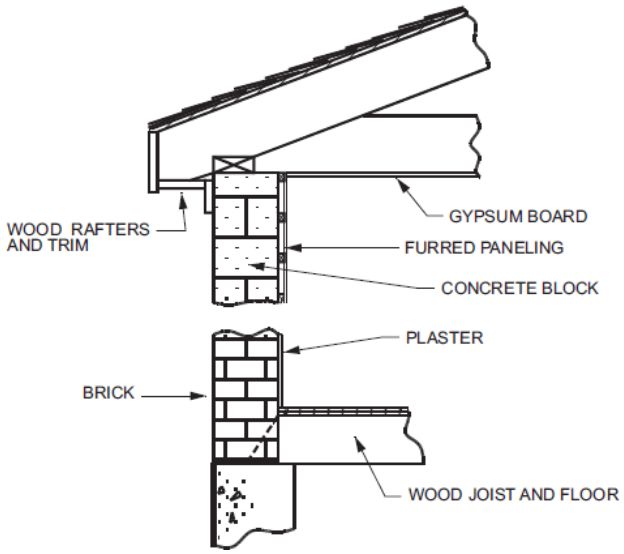


Figure 9: Type III (Ordinary) Construction

ACTIVITY

Type III Construction Activity

Directions: Use Table 601 to fill in the fire-resistance ratings below.

Fire-Resistance Ratings in Table 601

	Type IIIA	Type IIIB
Primary Structural Frame		
Exterior Bearing Walls		
Interior Bearing Walls		
Floor Construction		
Roof Construction		

* Not less than the rating based on fire separation distance (see Table 602)

** For nontransient residential buildings up to 4 stories, may be reduced to 30 minutes (note h)

Section 602.5—Type IV Construction

In buildings of Type IV construction, exterior walls are constructed of noncombustible materials and interior structural elements are constructed of heavy timber (see Figure 10).

CODE BOOK

CBC Table 2304.11

Dimensional requirements for heavy timber structural members are in Table 2304.11.

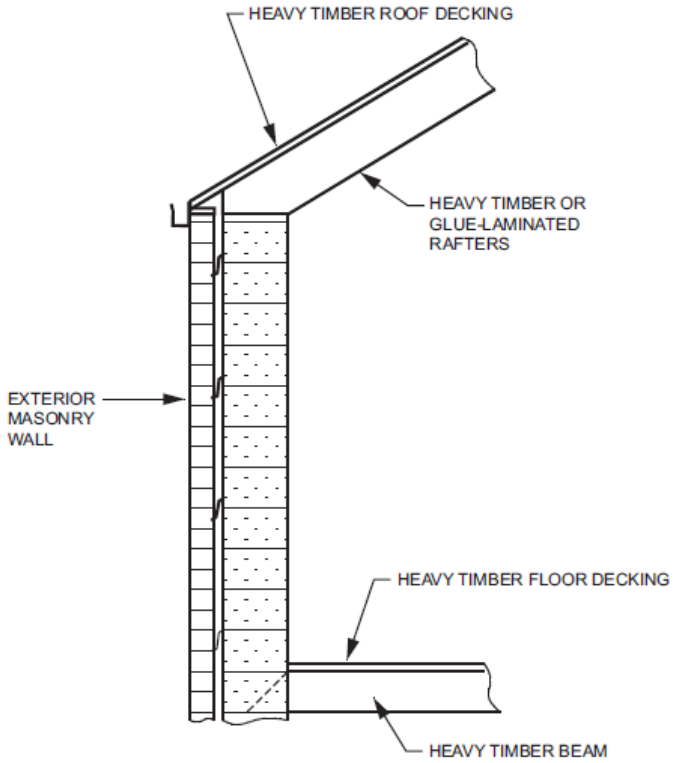


Figure 10: Type IV (Heavy Timber) Construction

Fire-Resistance Ratings in Table 601	
	Type IV (HT)
Primary Structural Frame	HT
Exterior Bearing Walls	2*
Interior Bearing Walls	1/HT
Floor Construction	HT
Roof Construction	HT

* Not less than the rating based on fire separation distance (see Table 602)

Section 602.6—Type V Construction

Buildings of Type V construction may be constructed with any type of combustible or noncombustible materials allowed by the code. Typically, the structural members and exterior walls of a Type V building are wood frame construction (see Figure 11).

Type VA is protected; Type VB is unprotected.

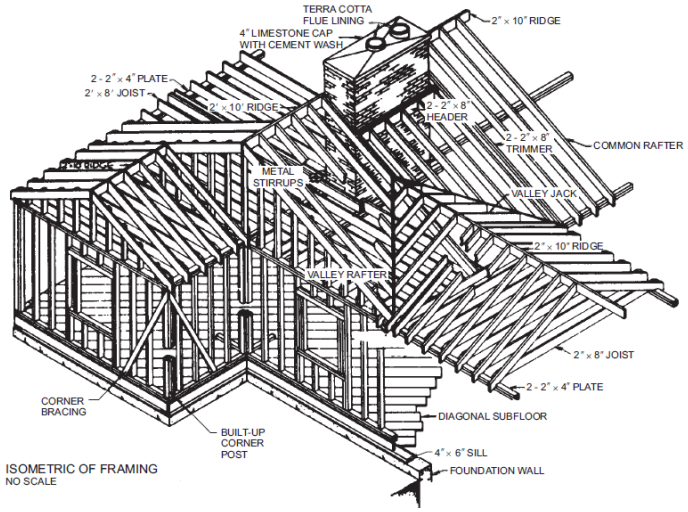


Figure 11: Type V (Frame) Construction

ACTIVITY

Type V Construction Activity

Directions: Use Table 601 to fill in the fire-resistance ratings below.

Fire-Resistance Ratings in Table 601

	Type VA	Type VB
Primary Structural Frame		
Exterior Bearing Walls		
Interior Bearing Walls		
Floor Construction		
Roof Construction		

* Not less than the rating based on fire separation distance (see Table 602)

** For nontransient residential buildings up to 4 stories, may be reduced to 30 minutes (note h)

Three Steps to Verify the Height of a Building

KEY CONCEPT

1. Determine the proposed building height from the construction documents.

    1.1. Establish grade plane (or confirm the applicant has done so correctly).

    1.2. Verify the building height (in feet) above grade plane.

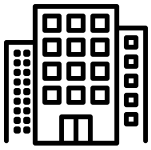
    1.3. Verify the number of stories, basements, and stories above grade plane.

2. Determine the maximum allowable number of stories and height above grade plane based on construction type and occupancy.

3. Verify that the proposed height (in both feet and stories above grade plane) does not exceed the maximum allowable height.

Example: Office Building

FOR EXAMPLE



The office building shown in Figure 19 and Figure 20 will be used to demonstrate how to determine or verify building height.

The applicant has not shown grade plane on the drawings but has indicated a building height of 75 feet and 6 stories on the application.

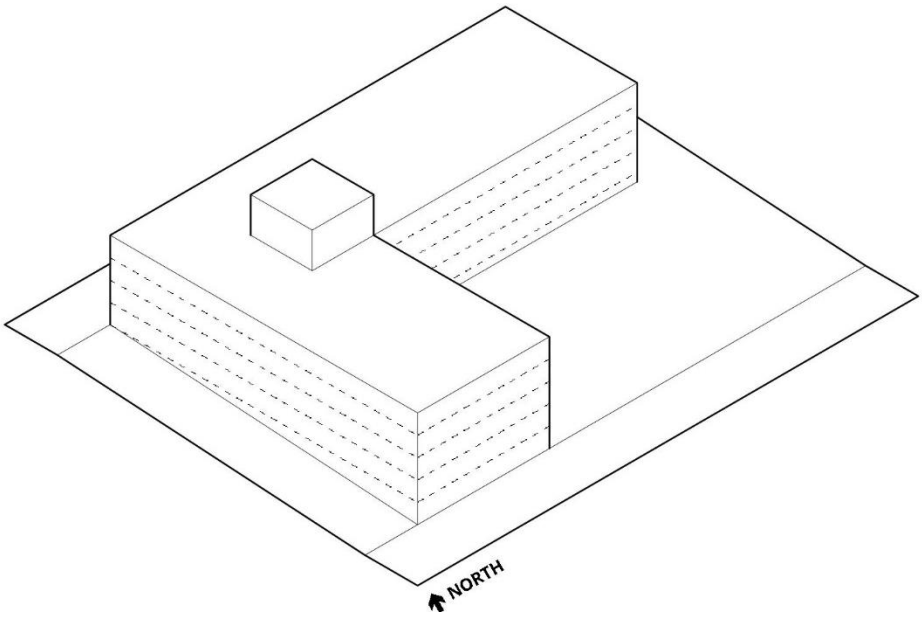


Figure 19: Office building

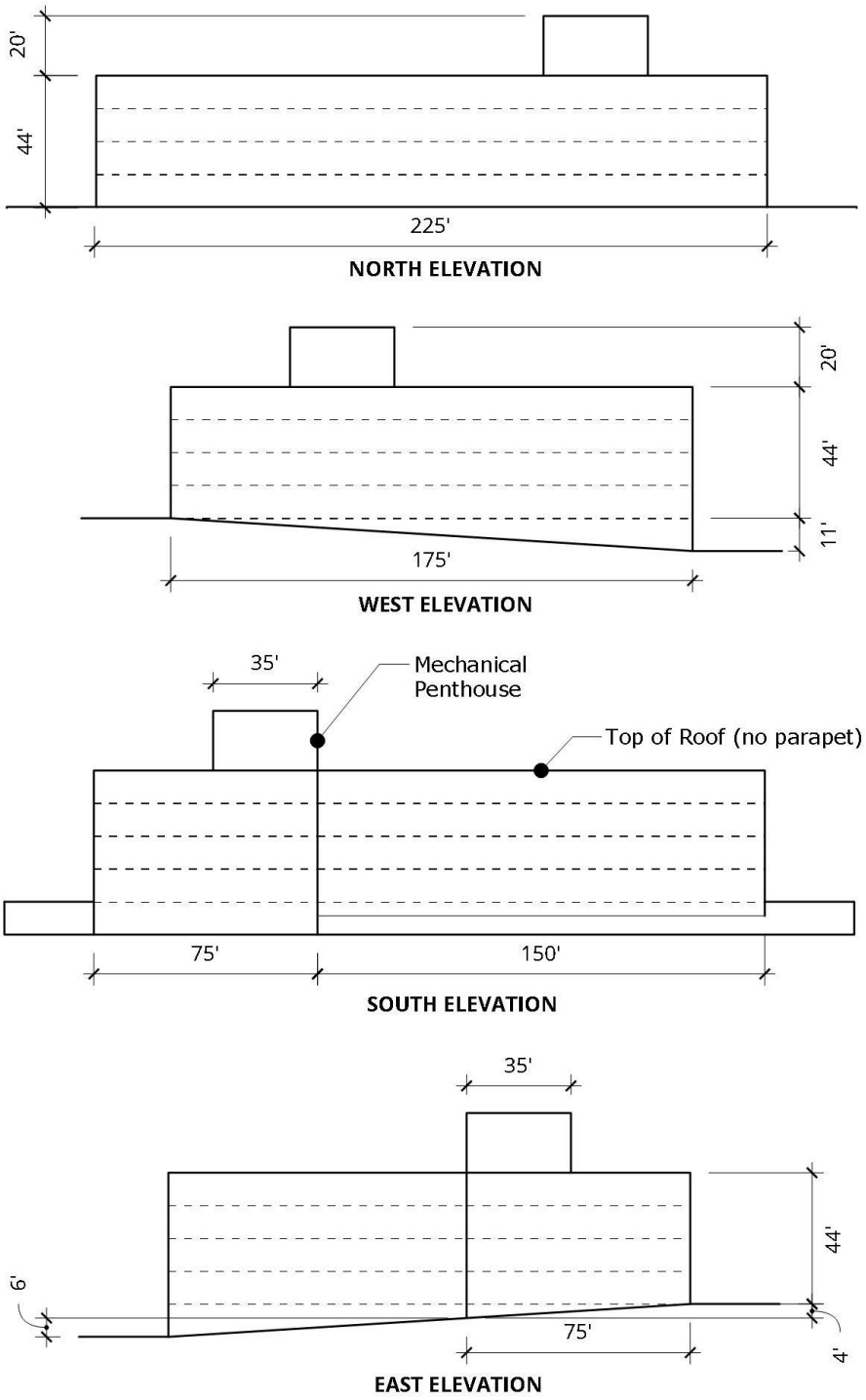


Figure 20: Building elevations

* Wall height dimensions shown in Figure 20 are taken from lowest point within 6 feet horizontally from base of wall to average height of roof.

Step 1: Determine proposed building height.

Determine the proposed building height by reviewing the construction documents. (In most cases, this should be to verify the building height provided by the applicant.) Details for the office building shown in Figure 19 and Figure 20 are as follows:

- An office building (Group B).
- Protected by a NFPA 13 sprinkler system throughout.
- Designated as Type IIA construction.

Additionally:

- The building walls are at least 30 feet from property lines on all sides.
- The ground around the building is not level.
- The north wall has a height of 44 feet from ground to the average height of the roof surface.
- The south wall has height of 55 feet from ground to the average height of the roof surface.
- The east and west walls have variable heights because the adjacent ground slopes along the length of these walls.
- The mechanical penthouse contains a stairway and elevator serving the roof level.
- The height of the mechanical penthouse is 20 feet above the roof surface. The area of the roof is 24,375 ft² and the area of the mechanical penthouse is 1,225 ft² (5%).

Step 1.1: Determine grade plane.

Calculate the above-ground area of each wall between the highest and lowest ground elevations adjoining the building:

North:	0 ft × 225 ft = 0 ft²
West:	11 ft × 175 ft ÷ 2 = 962.5 ft²
South:	11 ft × 75 ft + 4 ft × 150 ft = 1,425 ft²
East:	11 ft × 175 ft ÷ 2 = 962.5 ft²
Total:	0 ft² + 962.5 ft² + 1,425 ft² + 962.5 ft² = **3,350 ft²**

To find the vertical distance between the highest point and grade plane, divide the total wall area by the building perimeter.

Here, the building perimeter is:

225 ft + 175 ft + 75 ft + 100 ft + 150 ft + 75 ft = 800 ft

3,350 ft² ÷ 800 ft = 4.2 ft

Grade plane is 4.2 feet below the highest ground level adjoining the building (here, the ground level adjoining the north wall.)

Step 1.2: Verify building height (in feet) above grade plane.

The vertical distance from grade plane to the average height of the main roof surface is 48.2 feet.

The vertical distance from grade plane to the top of the mechanical penthouse is 68.2 feet.

Does the mechanical penthouse need to be included in building height?

The penthouse only occupies 5% of the overall roof area, so it is far less than one-third.

Section 1510.2.1 provides that the height of a mechanical penthouse on a building of Type IIA construction is limited to 18 feet if it is to be excluded from building height. But because the penthouse also contains an elevator that travels to the roof level, it is also a rooftop access penthouse and can be excluded from building height if it has a maximum height of 20 feet above the roof deck per the exception to Section 1513.2.1.

The building height is **48.2 feet.** (The applicant was wrong.)

Step 1.3: Verify the number of stories above grade plane.

Because the uses of the penthouse are limited to those listed in Sections 1510.2.2 (for mechanical penthouses) and 1513.2.2 (for rooftop access penthouses) and are within the height and area limits of Sections 1510 and 1513 (as determined in the previous step) the penthouse does not count as a story of the building.

Is the lowest story a “story above grade plane” or a “basement”?

The floor level of the next story above is 4.2 feet above grade plane.

The floor level of the next story above is 11 feet above the ground at the southwest corner (lowest point).

Accordingly, this lowest story is a **basement**. The story with a floor aligned with the ground level on the north side of the building is the first story above grade plane.

There are **4 stories above grade plane**, because the lowest level is a basement and the mechanical penthouse does not count as a story.

(The applicant was wrong again.)

Step 2: Determine the allowable number of stories and height above grade plane based on construction type and occupancy.

For a single-occupancy Group B (Business) building of Type IIA construction with a full NFPA 13 automatic sprinkler system, Table 504.3 allows a building height of 85 feet.

TABLE 504.3
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE[a]

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION									
	SEE FOOTNOTES	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
A, B, E, F, H-4[c] M, S, U	NS[b]	80	80	65	30	55	30	65	30	15
	S	UL	150	85	45	70	45	85[g]	45	30
H-1, H-2, H-3, H-5	NS[c, d]	UL	80	65	30	55	NP	65	NP	NP
	S									
I	NS[b]	80	80	65	30	55	30	65	30	NP
	S	UL	150	85						
R	NS[b]	80	80	65	30	55	30	65	30[e]	20
	S13D	40	40	40	40	40	40	40	40	35
	S13R	55	55	55	45	55	45	55	45[f]	35
	S	UL	150	85	45	70	45	85[g]	45[f]	35

For the same building, Table 504.4 allows a building height of 7 stories above grade plane.

TABLE 504.4
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE[a, b]

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION									
	SEE FOOTNOTES	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
A-1	NS	UL	5	3	1	2	NP	2	1	NP
	S-13	UL	6	4	2	3	1	3	1	NP
A-2	NS	UL	10	3	1	2	NP	2	1	NP
	S-13	UL	11	4	2	3	1	3	1	NP
A-3	NS	UL	10	3	1	2	NP	2	1	NP
	S-13	UL	11	4	2	3	1	3	1	NP
A-4	NS	UL	10	3	1	2	NP	2	1	NP
	S-13	UL	11	4	2	3	1	3	1	NP
A-5	NS	UL	UL	UL	UL	1	1	UL	1	1
	S-13	UL	UL	UL	UL	1	1	UL	1	1
B	NS	UL	11	6	1	4	2	5	1	NP
	S-13	UL	12	7	2	5	3	6	2	1

Step 3: Verify that the proposed height (in both feet and stories above grade plane) does not exceed the maximum allowable height.

Category	Applicant Provided Value	Correct Value	Maximum Allowed	OK?
Height (ft)	75 ft	48.2 ft	85 ft	Yes
Height (stories)	6 stories	4 stories	7 stories	Yes

Although the applicant determined both the height in feet and number of stories above grade plane incorrectly, the applicant's errors did not cause any violations.

Both the applicant's (incorrect) height values and the correct height values are acceptable for this type of occupancy and construction where a full sprinkler system is provided.

ACTIVITY

Building Height Activity

For the office building shown in Figure 19 and Figure 20, what lesser construction types would be allowed (based on height only), now that the correct height values have been determined?

Write the allowable height in the first row and "Y" or "N" in the second row of each entry in the table below. Type VB is completed as an example.

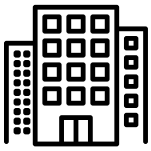
Height	Construction Type Acceptable?					
	IIB	IIIA	IIIB	IV	VA	VB
48.2 feet						30 FT
						N
4 stories						1 STORY
						N

KEY CONCEPT

Applying the 11 Steps from Task 2.4 to a Separated Mixed-Occupancy Building

Analysis of building area for a separated mixed occupancy building is similar to the process for a single occupancy or unseparated mixed occupancy building. The procedure changes beginning with Step 6.

FOR EXAMPLE



The building described below will be used as an example for applying Steps 6 through 11 of the process described in the previous task to a separated mixed-occupancy building:

SEPARATED MIXED-OCCUPANCY BUILDING: SPACE ALLOCATION

Space	Occupancy Group	Floor Area
Basement		
Parking Garage	Group S-2	7,000
	TOTAL	7,000
First Story Above Grade Plane		
Professional Office	Group B	2,000
Retail Store	Group M	2,000
Restaurant	Group A-2	3,000
	TOTAL	7,000
Second Story Above Grade Plane		
Apartments (8)	Group R-2	7,000
	TOTAL	7,000
Third Story Above Grade Plane		
Apartments (8)	Group R-2	7,000
	TOTAL	7,000
Fourth Story Above Grade Plane		
Apartments (8)	Group R-2	7,000
Mechanical Penthouse	Group R-2 (accessory)	2,000
	TOTAL	9,000

Key Information from Steps 1-5

Occupancy Groups: A-2, B, M, R-2, S-2

Construction Type: VA (protected frame)

Sprinkler System: Full NFPA 13

Proposed Height: 54 feet
4 stories above grade plane

Tabular factors:

	A_t (SM)	NS
A-2	9,000 ft²	3,000 ft²
B	18,000 ft²	6,000 ft²
M	15,000 ft²	5,000 ft²
R-2	15,000 ft²	5,000 ft²
S-2 (*garage*)	18,000 ft²	6,000 ft²

Frontage increase (I_f): 100% (corner lot, 2 sides face street > 30 ft)

Step 6. Determine whether the building is mixed occupancy.

This is a separated mixed-occupancy building.

Required occupancy separations.

The basement parking garage must be separated from all other occupancies by construction with a fire-resistance rating of at least 3 hours per the exception to Section 406.2.8.2.

The restaurant (Group A-2) must be separated from the business (Group B) and mercantile (Group M) occupancies by construction with a fire-resistance rating of at least 1 hour per Table 508.4.

The restaurant (Group A-2) must be separated from the residential (Group R-2) occupancy by construction with a fire-resistance rating of 1 hour per Table 508.4.

These separations must be increased to 2 hours if the occupant load of the Group A occupancy is 300 or more, per Table 508.4, note h.

The business (Group B) and mercantile (Group M) occupancies must be separated from the residential (Group R-2) occupancy by construction with a fire-resistance rating of 1 hour per Table 508.4.

Step 7. Calculate the allowable area for each occupancy group.

The allowable building area for each occupancy in a multi-story separated mixed-occupancy building is determined per Equation 5-3:

$$A_a = [A_t + (NS \times I_f)]$$

where:

A_a = Allowable area (square feet).

A_t = Tabular allowable area factor (NS, S13R, S13D or SM value, as applicable) in accordance with Table 506.2.

NS = Tabular allowable area factor in accordance with Table 506.2 for a nonsprinklered building (regardless of whether the building is sprinklered).

I_f = Area factor increase due to frontage (percent).

Group A-2 A_a = 9,000 ft² + (3,000 ft² × 100%) = 12,000 ft²

Group B A_a = 18,000 ft² + (6,000 ft² × 100%) = 24,000 ft²

Group M A_a = 15,000 ft² + (5,000 ft² × 100%) = 20,000 ft²

Group R-2 A_a = 15,000 ft² + (5,000 ft² × 100%) = 20,000 ft²

Group S-2 A_a = 18,000 ft² + (6,000 ft² × 100%) = 24,000 ft²

Step 8. Check the actual (proposed) area.

Calculate the ratio of proposed floor area to allowable area for each occupancy on each story above grade plane. The ratio for each occupancy group cannot exceed 1.

First Story:

Group A-2: 3,000 ft² ÷ 12,000 ft² = 0.25

Group B: 2,000 ft² ÷ 24,000 ft² = 0.083

Group M: 2,000 ft² ÷ 20,000 ft² = 0.1

Second and Third Stories:

Group R: 7,000 ft² ÷ 20,000 ft² = 0.35

Fourth Story (including mechanical penthouse above):

Group R: 9,000 ft² ÷ 20,000 ft² = 0.45

Step 9. Verify the actual area is less than the allowable area for each story.

Sum the ratios from Step 8 for each story above grade plane. The sum of the ratios for each story cannot exceed 1.

First Story:

0.25 + 0.083 + 0.1 = 0.433 0.433 ≤ 1

Second—Fourth Stories:

0.35 or 0.45 0.45 ≤ 1

Step 10. Check maximum allowable area.

Sum all ratios from Step 9 to determine if the building complies.

The sum of the ratios for all stories above grade plane cannot exceed 2 for a 2-story building or 3 for a building with 3 or more stories. (Section 506.2.4)

0.433 + 0.35 + 0.35 + 0.45 = 1.583 1.583 ≤ 3

The total building area of 30,000 ft² is acceptable in Type VA construction with an automatic sprinkler system throughout.

Step 11. Verify proposed heights do not exceed code maximums.

Occupancy	Actual Ht. (feet)	Max Height (feet)	Actual Ht. (stories)	Max Height (stories)	OK?
A-2	20 ft	45 ft	1	1	Yes
B	20 ft	45 ft	1	2	Yes
M	20 ft	45 ft	1	1	Yes
R-2	54 ft	55 ft*	4	4	Yes*
S-2	0 ft	45 ft	0	1	Yes

* Per Table 504.3, note f, 55 feet provided the highest finished floor is no more than 40 feet above grade plane.

The building height, and height of each occupancy is acceptable so long as the highest finished floor of an occupiable space is no more than 40 feet above grade plane.

FOR EXAMPLE

Determining Occupant Load Example

Refer to Figure 31 for a typical small restaurant floor plan used in this example of applying the five steps to determine occupant load:

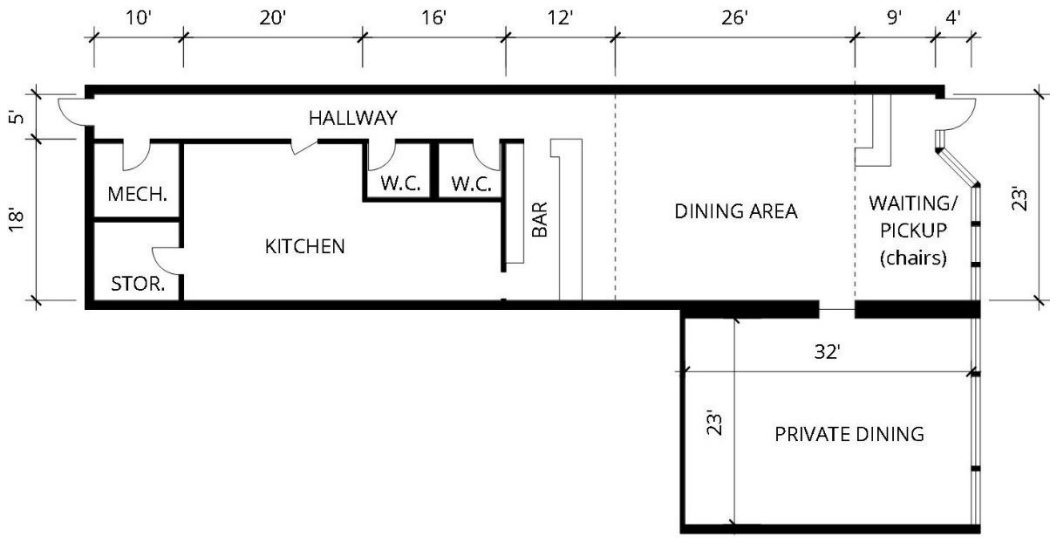


Figure 31: Restaurant Floor Plan

Step 1: Categorize functions.

Determine the function for each area under consideration using Table 1004.5. Select the most appropriate classification for each function in the space:

Room/Space	Function
Waiting/Pickup	Assembly, concentrated (chairs only—not fixed)
Dining Area Private Dining	Assembly, unconcentrated (tables and chairs)
Bar (seating)	Assembly, concentrated (chairs only—not fixed)
Kitchen and behind bar	Kitchens and service areas, commercial
Storage Mechanical	Accessory storage areas, mechanical equipment room

Step 2: Identify occupant load factors.

Identify the occupant load factor associated with each function. Pay attention to whether the factor is based on gross floor area or net floor area:

Room/Space	Function	Occupant Load Factor
Waiting/Pickup	Assembly, concentrated (chairs only—not fixed)	7 net
Dining Area Private Dining	Assembly, unconcentrated (tables and chairs)	15 net
Bar (seating)	Assembly, concentrated (chairs only—not fixed)	7 net
Kitchen and behind bar	Kitchens and service areas, commercial	200 gross
Storage Mechanical	Accessory storage areas, mechanical equipment room	300 gross

Step 3: Calculate the occupant load for each area.

Measure the floor area associated with each function and multiply by the applicable factor:

Room/Space	Floor Area		Occupant Load Factor		Design Occupant Load
Waiting/Pickup	245 ft² net (exclude fixed counter)	÷	7 net	=	35
Dining Area	600 ft²	÷	15 net	=	40
Private Dining	735 ft²	÷	15 net	=	49
Bar (seating)	65 ft²	÷	7 net	=	10
Kitchen and behind bar	680 ft² gross (include counters, etc.)	÷	200 gross	=	4
Storage	80 ft²	÷	300 gross	=	1
Mechanical	80 ft²	÷	300 gross	=	1

Step 4: Identify cumulative occupant load conditions.

In this example, none of the rooms and spaces in the restaurant have distinct exits or connect to an exit access corridor.

ACTIVITY

Exterior Wall Activity

Purpose: To apply your knowledge of exterior walls.

Directions: Determine the required fire-resistance rating and maximum allowable area of openings for each exterior wall for the single-story fully-sprinklered Type IIB department store shown in Figure 79 in accordance with Section 705:

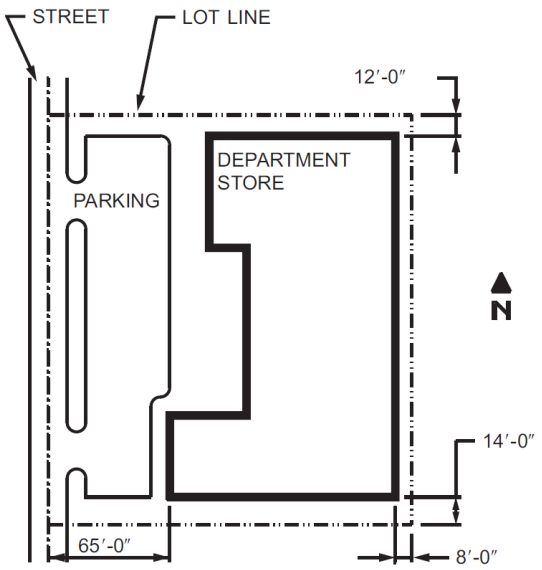


Figure 79: Department store site plan

	North	East	South	West
Fire Separation Distance	ft	ft	ft	ft
Bearing Wall	hrs	hrs	hrs	hrs
Nonbearing Wall	hrs	hrs	hrs	hrs
Allowable Area of Unprotected Openings	%	%	%	%

Projections not listed in the tables must conform to the type of construction and fire-resistance rating required for the building to which they are attached.

Step 3: Check perimeter coverage for combustible projections.

Decks, exterior balconies, exterior exit stairways, porches, and similar projections of combustible construction may not exceed 50 percent of the building's perimeter on each floor. (Section 705.2.3)

ACTIVITY

Exterior Wall Projections Activity

Purpose: To apply your knowledge of exterior wall projections.

Directions: Identify the minimum fire separation distance for the following exterior wall projections:

	Minimum FSD	Description
1.	_____	A 350 ft² deck with wood framing and composite decking, accessed from the second floor of a restaurant in a Type IIA building
2.	_____	Open porch with steel structure and perforated steel walking surfaces on Group R-2 building of Type IIIA construction serving 4 stories above grade and occupiable rooftop
3.	_____	PVC gutters and downspouts on 3-story 35-foot-high Group R-5 building of Type VA construction
4.	_____	Decorative fiberglass cornice on 55-foot-high Group B building of Type IIA construction
5.	_____	Wood balconies on 4-story 54-foot-high Group R-2 building of Type IIIA construction (individual balcony areas: 50 to 95 ft²)

Fire Barriers Activity

ACTIVITY

Purpose: To apply your knowledge of fire barriers.

Directions: Check the fire-resistance rating of the fire barrier in Figure 85. Assume a fully sprinklered separated mixed occupancy building.

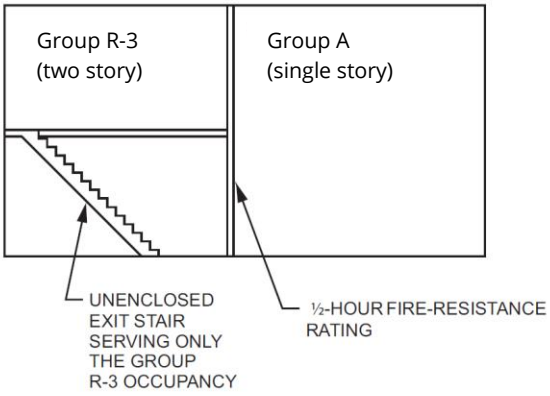


Figure 85: Building section

ACTIVITY

Interior Finishes Activity

Purpose: To apply your knowledge of interior finish requirements.

Directions: Apply Table 803.13 and Section 804 to determine whether the materials are acceptable in the areas indicated in Figure 102.

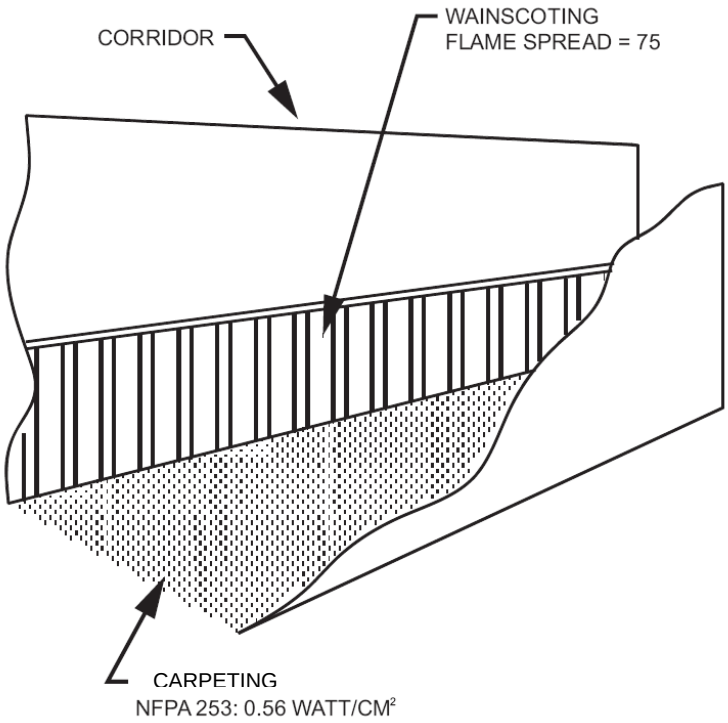


Figure 102: Corridor in nonsprinklered Group B occupancy

ACTIVITY

Required Sprinkler Systems Activity

Purpose: To apply your knowledge of sprinkler systems.

Directions: Identify whether a sprinkler system is required and allowable type(s) for the buildings described below. If the description does not provide enough information, identify what additional information is needed to determine if a sprinkler system must be provided.

	Description	Required?	Type
1.	1-story temporary classroom annex for Chicago Public Schools	Yes / No	13 / 13R / 13D
2.	3-story apartment building, 2 dwelling units per floor (incl. basement) (8 total dwelling units), 2 interior exit stairways in 2-hour-rated enclosures, 2-hour-rated floors	Yes / No	13 / 13R / 13D
3.	Strip mall with 5, 5,000 ft² tenant spaces: 1 mattress store, 2 cell phone stores, 1 pharmacy, 1 pet supply store; separated by 2-hour-rated fire barriers	Yes / No	13 / 13R / 13D
4.	2-story professional office building, 4,000 ft²/story with 300 ft² server room in basement with 1-hour-rated walls and ceiling	Yes / No	13 / 13R / 13D
5.	Same as 4, but with 2-hour-rated walls and ceiling	Yes / No	13 / 13R / 13D

- Recommended installation procedures.
- Field inspection and reporting procedures (to include procedures for verification of the installed bearing capacity where required).
- Load test requirements.
- Suitability of deep foundation materials for the intended environment.
- Designation of bearing stratum or strata.
- Reductions for group action, where necessary.

Other specialized requirements

Additional reporting requirements apply where the following conditions are present:

- Compacted fill material more than 12 inches deep (Section 1803.5.8)
- Shallow foundations bearing on controlled low-strength material (Section 1803.5.9)
- Seismic Design Category C structures (Section 1803.5.11)
- Seismic Design Category D structures (Sections 1803.5.11 and 1803.5.12)

ACTIVITY

Soils and Foundations Activity

Purpose: To apply your knowledge of geotechnical requirements.

Directions: Answer the following questions about the description of work provided. If the description does not provide sufficient information, identify additional information that is needed.

PROJECT 1

Description: CONSTRUCT NEW 3-STORY W/ BASEMENT 3 D.U. APARTMENT BUILDING AND DETACHED 3-CAR GARAGE WITH ROOFTOP DECK. TYPE VA CONSTRUCTION. MAIN BUILDING FULLY SPRINKLERED.

Excavation depth: 7 FEET

Excavation distance from property line: 2 FEET 6 INCHES

Design soil bearing pressure: 3,500 PSF

Design soil lateral pressure: 40 PSF/FT DEPTH

Geotechnical report submitted with permit application: NO

1. Is an excavation notice required?	YES	NO
2. Is a geotechnical report required for permitting?	YES	NO
3. If a geotechnical report is not required for permitting, is one required before the start of construction?	YES	NO
4. Is a geotechnical review required?	YES	NO
5. Is the design bearing pressure acceptable?	YES	NO
6. Is the design lateral soil pressure acceptable?	YES	NO

PROJECT 2

Description: CONSTRUCT NEW 1-STORY WAREHOUSE, NO BASEMENT, 15,000 SQ. FT. TYPE IIB CONSTRUCTION. FULLY SPRINKLERED.

Excavation depth: 9 FEET

Excavation distance from property line: 12 FEET

Design soil bearing pressure: 3,000 PSF

Design soil lateral pressure: NOT SPECIFIED

Geotechnical report submitted with permit application: NO

1. Is an excavation notice required?	YES	NO
2. Is a geotechnical report required for permitting?	YES	NO
3. If a geotechnical report is not required for permitting, is one required before the start of construction?	YES	NO
4. Is a geotechnical review required?	YES	NO
5. Is the design bearing pressure acceptable?	YES	NO
6. Is the design lateral soil pressure acceptable?	YES	NO

Risk Category Activity

Purpose: To apply your knowledge of risk category.

Directions: Determine the Risk Category for the following buildings:

1. 3-story medical office building connected to hospital with emergency room
2. 3-story school with occupant load of 450 and attached day-care center with occupant load of 60
3. 4-story, 8-unit apartment building
4. New offices and backup communication center for Chicago Office of Emergency Management and Communications (OEMC)
5. New airport terminal building with occupant load > 1,000 and connected air-traffic control tower