

IBC PROJECT – HOW DO I USE PLAN ANALYST?

ALL YOU NEED IS A COPY OF THE PLANS AND A COMPUTER WITH PLAN ANALYST INSTALLED. YOU'RE READY TO GO!

- **FIRST YOU SIMPLY FILL IN THE PLAN ANALYST FORMS TO COMPLETE THE BUILDING DESCRIPTION AS SHOWN BELOW.**
- **PLAN ANALYST WILL THEN SEARCH THROUGH THE CODE, COMPLETE ALL REQUIRED TIME CONSUMING CALCULATIONS AND CREATE A CODE STUDY FOR THIS PROJECT THAT ONLY INCLUDES CODE REQUIREMENTS THAT APPLY TO THIS PROJECT.**
 1. **IF YOU ARE IN THE DESIGN PROCESS, THIS REPORT PROVIDES YOU WITH THE CODE REQUIREMENTS NEEDED TO MAKE YOUR PLAN COMPLY WITH THE CODE INCLUDING INSTANT ANSWERS FOR WHAT IF I ADD OCCUPANCY SEPARATIONS, MOVE THE PROJECT ON THE SITE OR ADD SPRINKLERS, ETC. NOW YOU HAVE COMPLETE CONFIDENCE IN CODE COMPLIANCE, PREVENTING DELAYS WHEN THE PLANS ARE SUBMITTED FOR APPROVAL.**
 2. **IF YOU ARE CHECKING THE PLANS FOR CODE COMPLIANCE, THIS REPORT PROVIDES YOU WITH THE CODE REQUIREMENTS FOR THIS PROJECT. THIS WILL MAKE THE PLAN REVIEW PROCESS FASTER AND MORE ACCURATE.**
- **NEXT YOU CREATE A CORRECTION REPORT BY REVIEWING THE QUESTIONS IN THE CORRECTION REPORT SECTION. THE QUESTIONS ARE CUSTOMIZED TO INCLUDE ONLY WHAT IS SPECIFIC TO THIS PROJECT. WHEN YOU HAVE REVIEWED AND ANSWERED THE PROMPTED QUESTIONS A CORRECTION REPORT IS CREATED COMPLETE WITH VERIFYING CODE REFERENCES.**
- **IF YOU ARE CHECKING PAPER PLANS, YOU CAN ATTACH THIS REPORT TO THE PLANS ELIMINATING CLIENT CODE QUESTIONS.**
- **IF YOU ARE CHECKING PLANS USING AUTODESK DESIGN REVIEW, YOU CAN SIMPLY CUT AND PASTE THE REQUIRED CORRECTIONS FROM PLAN ANALYST TO THE CALLOUTS BOXES AT THE APPROPRIATE PLACES ON THE PLAN. NO PAPER**

ENTERING AN IBC PROJECT DESCRIPTION

CLICK THE IBC PROJECT BUTTON ON THE LEFT SIDE OF SCREEN OR CLICK PROJECT ON THE PULL-DOWN MENU, THEN CLICK NEW PROJECT AND CLICK ALL OTHER IBC PROJECTS.

PROJECT INFORMATION

The screenshot shows the 'Project Information' window with the following fields and options:

- Identification Number: 1234-09
- Description of Project: Example of an Office Building
- Address of Project: 4210 Golf Club Drive
- Project Architect: HHH Architects
- Project Engineer: JJJ Engineers
- Project construction by: ZZZ Construction
- Code study by: Ben Weese
- Interior Construction only
- Number of fire walls separating building into multiple buildings (501.1 and 705.1):
 - None
 - 1 wall/2 Buildings
 - 2 wall/3 Buildings
 - 3 wall/4 Buildings
- Basic Description:
 - Building height (502): 27
 - There is an atrium in the building. (404)
 - Number of stories above grade plane (202): 2
 - Number of floors below grade - basement levels (502.1): 0
- Note: The total number of stories and basement levels cannot exceed 150.
- Buttons: Back, Continue

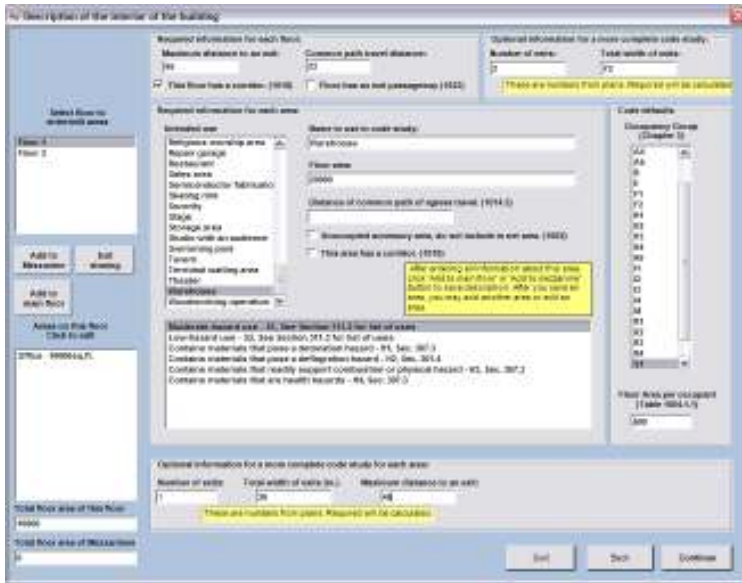
1. **ENTER THE INFORMATION ABOUT THE PROJECT.**
2. **IF THIS IS A LARGE BUILDING REQUIRING FIRE WALLS TO SEPARATE THE BUILDING INTO MULTIPLE BUILDINGS, CLICK ON THE NUMBER OF FIRE WALLS. NOTE: FIREWALLS REQUIRED FOR USE SEPARATION, EXITS, LOCATION ON PROPERTY, ETC. ARE CALCULATED FOR YOU.**
3. **ENTER THE HEIGHT OF THE BUILDING.**
4. **CLICK UP-DOWN ARROWS TO SELECT THE NUMBER OF STORIES ABOVE GRADE**
5. **IF THERE ARE BASEMENT LEVELS, CLICK UP-DOWN ARROWS TO SELECT THE NUMBER OF FLOORS BELOW GRADE.**
6. **CLICK THE CONTINUE BUTTON.**

BUILDING INTERIOR

CLICK ON THE **FLOOR** THAT YOU ARE ENTERING OR EDITING.

FOR EACH FLOOR

1. ENTER INFORMATION REQUESTED IN TOP 2 BOXES



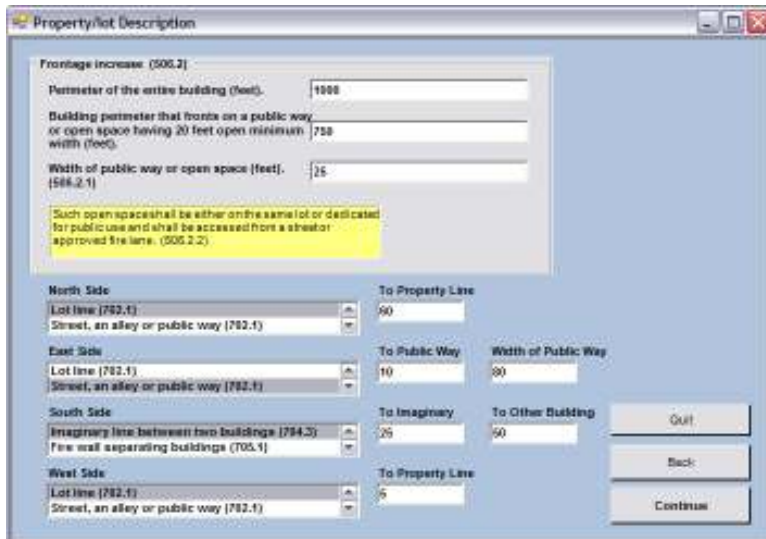
FOR EACH AREA ON THE FLOOR

1. CLICK THE **NAME OF THE AREA** IN THE INTENDED USE: LIST.
2. ENTER THE **FLOOR AREA**. **NOTE:** WHEN A NUMBER IS REQUIRED, PLAN ANALYST HAS A BUILT-IN CALCULATOR. IE. **20_6 x 13** FOR 20'6" TIMES 13'
3. CLICK ANY **OTHER OPTION** THAT APPLIES TO THIS AREA. **NOTE:** SOME USES HAVE ADDITIONAL OPTIONS IN THE GRAY AREA BELOW "INTENDED USE" THAT ARE NOT SHOWN IN THIS EXAMPLE.
4. CLICK **ADD TO MAIN FLOOR** OR **ADD TO MEZZANINE** AFTER THE INFORMATION FOR EACH AREA IS COMPLETED.
5. WHEN ALL AREAS ON ALL FLOORS ARE COMPLETED, CLICK THE **CONTINUE** BUTTON.

NOTES:

1. THE TOTAL FLOOR AREA IS SHOWN IN THE BOTTOM LEFT CORNER.
2. SOME USES ALLOW YOU TO SELECT FIXED SEATING. WHEN YOU SELECT FIXED SEATING, YOU WILL NEED TO ENTER THE **NUMBER** OF OCCUPANTS.
3. OPTIONS WILL VARY BASED ON THE SELECTED USE. THIS SIMPLIFIES THE INPUT FOR SPECIAL USES.
4. PLAN ANALYST WILL DEFAULT TO THE CORRECT OCCUPANCY GROUP AND AREA PER OCCUPANT. THERE IS NO NEED TO CHANGE THESE.
5. OPTIONAL INFORMATION FOR THE FLOOR IN THE UPPER RIGHT CORNER AND AREA INFORMATION AT THE BOTTOM **MAY BE LEFT BLANK** BUT IF YOU ENTER THIS INFORMATION, THE CODE STUDY WILL ALSO **SHOW IF THE NUMBER OF EXITS, THE WIDTH OF EXITS, AND THE TRAVEL DISTANCES ARE CORRECT**. ENTERING THIS INFORMATION WILL ALSO ALLOW YOU TO ADD THESE PROBLEMS TO THE CORRECTION REPORT AUTOMATICALLY.
6. YOU MAY MOVE BACK AND FORTH THROUGH THE FLOORS AND AREAS BY CLICKING THE **NAME OF FLOOR OR AREA** IN THE LIST BOXES ON THE LEFT SIDE. WHEN AN AREA IS SELECTED, YOU MAY EDIT OR DELETE IT.

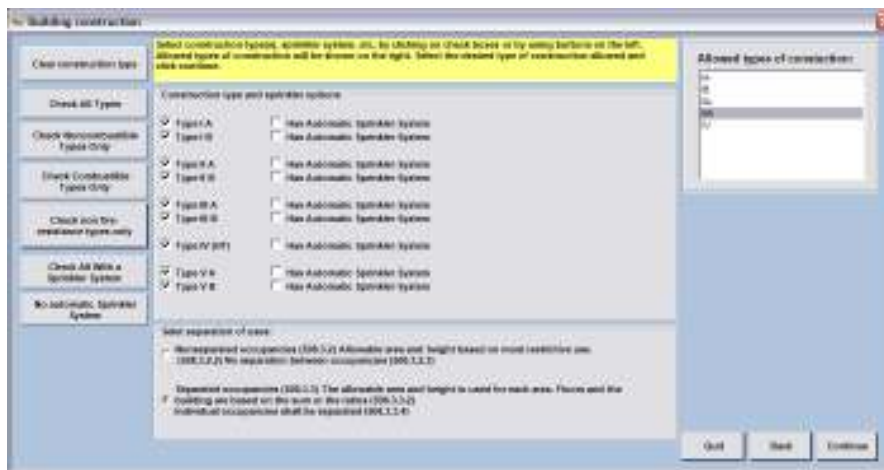
PROPERTY DESCRIPTION



TO ENTER THE PROPERTY DESCRIPTION

1. ENTER THE **PERIMETER** OF THE BUILDING, THE OPEN PERIMETER AND THE MINIMUM WIDTH OF ACCESSIBLE OPEN SPACE AROUND THE BUILDING.
2. FOR EACH SIDE, SELECT THE **BOUNDARY** (LOT LINE, STREET, ETC) AND **ENTER THE REQUIRED DISTANCE(S)**.
3. CLICK THE **CONTINUE** BUTTON.

SELECTING CONSTRUCTION TYPE



1. YOU MAY EITHER CLICK A **BUTTON** TO CHECK MULTIPLE CONSTRUCTION TYPES OR CLICK **CHECK BOXES** BESIDES THE TYPE OF CONSTRUCTION THAT YOU ARE CHECKING.
2. IF THE BUILDING HAS A **SPRINKLER SYSTEM**, YOU MAY EITHER CLICK A **SPRINKLER BUTTON** OR **SPRINKLER CHECK BOXES**.
3. IF THERE IS MORE THAN ONE USE IN THE BUILDING, SELECT **SEPARATION OF USES**.

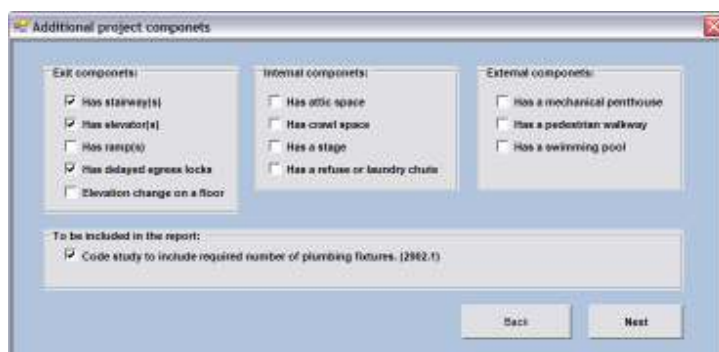
THIS SCREEN IS INTERACTIVE. THE ALLOWED TYPES OF CONSTRUCTION: LIST BOX WILL CHANGE TO SHOW THE ALLOWED TYPES OF CONSTRUCTION EACH TIME YOU MAKE A CHANGE. THIS ALLOWS YOU TO QUICKLY TRY DIFFERENT OPTIONS. THIS WILL HELP YOU QUICKLY DETERMINE IF YOU NEED TO SEPARATE USES OR ADD A SPRINKLER SYSTEM.

THE ALLOWED TYPES OF CONSTRUCTION WILL SHOW IN THE UPPER RIGHT CORNER.

SELECT THE **CONSTRUCTION TYPE** THAT YOU ARE USING.

IF YOU WANT TO CHECK ONLY ONE TYPE, SELECT **ONLY ONE TYPE** AND THEN THE **CONTINUE BUTTON**. THE REPORT WILL SHOW ALLOWABLE AREA, HEIGHT AND STORIES SO YOU WILL BE ABLE TO SEE IF THESE USES ARE ALLOWED IN THIS BUILDING.

ADDITIONAL COMPONENTS



CLICK THE **CHECK BOX** FOR EACH COMPONENT THAT IS INCLUDED IN THIS PROJECT.

IF YOU WANT THE REQUIRED NUMBER OF PLUMBING FIXTURES TO BE INCLUDED IN THIS REPORT, CLICK THE BOX FOR **CODE STUDY TO INCLUDE REQUIRED NUMBER OF PLUMBING FIXTURES**

CLICK THE **NEXT BUTTON**.

THE PROJECT DESCRIPTION IS NOW COMPLETE AND THE CODE STUDY WILL BE CREATED. THE REPORT IS DISPLAYED ON THE MAIN SCREEN

YOU MAY SAVE AND OR PRINT THIS REPORT.

IF YOU SEE SOMETHING THAT YOU WANT TO CHANGE, CLICK **PROJECT**, THEN CLICK:

- EDIT GENERAL INFORMATION** (TO CHANGE PROJECT INFORMATION) OR
- EDIT AREA INFORMATION** (TO CHANGE INFORMATION ABOUT FLOORS OR AREA) OR
- EDIT PROPERTY/LOT INFORMATION** (TO CHANGE PERIMETER OR DISTANCE TO LOT LINES) OR
- EDIT CONSTRUCTION TYPE** (TO CHANGE CONST. TYPE, SPRINKLER INFO., OR USE SEPARATION) OR
- EDIT ADDITIONAL FEATURES** (TO CHANGES STAIRS, RAMPS, LOCKS, PENTHOUSE, ETC.)

THE PROJECT DESCRIPTION IS NOW COMPLETE AND THE CODE STUDY WILL BE CREATED.

THE REPORT WILL BE DISPLAYED ON THE MAIN SCREEN.

EXAMPLE OF THE IBC CODE STUDY CREATED BY PLAN ANALYST

THIS CODE STUDY WAS CREATED USING THE INFORMATION THAT YOU SAW INPUT IN THIS EXAMPLE – NOTICE HOW SIMPLE THE INPUT WAS AND HOW COMPLETE THE REPORT IS!

Your Firm or Jurisdiction Name
Your Department
Your address
Your City, State Zip Code
Your Phone numbers(s)
Project Description: 1234-09 Example of an Office Building Date: Thursday, 2 Jul 2009
Project Location: 4210 Golf Club Drive
Construction by: ZZZ Construction Architect: HHH Architects Engineer: JJJ Engineers
Code Study by: Ben Weese

This code study is based on the 2009 International Building Code by ICC using Plan Analyst software.

BASIC BUILDING DESCRIPTION:

Type of Construction = IIIA
Building does not have an automatic sprinkler system
Allowable area and height based on different uses being separated by fire barriers. Sum of the ratios. (508.4.2 & 508.4.3)

ADDRESS IDENTIFICATION:

Buildings shall be provided with approved address numbers or letters. Each character shall be a minimum 4 inches high and a minimum 0.5 inch wide. They shall be installed on a contrasting background and be plainly visible from the street or road.

When the building address cannot be view from the public way, a monument, pole or other approved sign shall be used to identify the structure. (501.2)

SITE DESCRIPTION:

The north side has a lot line. (702.1) Distance to lot line = 60.0
The east side has a public way. (702.1) Distance to public way = 10.0 ,width = 80.0
The south side has an imaginary line between two buildings.(705.3) Distance to building = 50.0 ,the imaginary line = 25.0
The west side has a lot line. (702.1) Distance to lot line = 5.0
Openings in exterior walls are less than 30 inches high. (406.3.6)

Allowable area increased 41.66666% due to frontage. - Section 506.2

HEIGHT OF BUILDING:

Actual height of building = 27 Allowed building height = 65 The height is within the allowed height. (504.1 and Table 503)

BUILDING INTERIOR:

AREAS ON THE 2nd FLOOR

Office: Occupancy Group = B Actual floor area = 2,500.0 Allowed floor area = 40,375.0 Ratio = .06
Number of occupants = 25.0 Based on 100 square feet per occupant. (1004.1.1)
Minimum number of exits = 1 (1015.1) Number of exits provided = 1 Number of exits ok.
Minimum exit width = 5.0 inches. (1005.1) Width of exits provided = 36.0 Width of exits ok.
Common path of egress travel = .0 feet (1014.3 and 1015.1)
The maximum length of exit access is 200 feet. (Table 1016.1) The travel distance of 34 is ok.
Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)
Egress doors may swing in either direction. (1008.1.2)
Exception 5: Revolving doors complying with Section 1008.1.4.1
Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3
Exception 7: Power-operated doors complying with Section 1008.1.4.2
Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.
Corridor(s) in this area are not required to have a fire-resistive rating. (1018.1)
Minimum number of plumbing fixtures: (2902.1)

Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Conference room: Occupancy Group = A3 Actual floor area = 1,000.0 Allowed floor area = 19,833.3 Ratio = .05 (1008.1.10)

Number of occupants = 66.7 Based on 15 square feet per occupant. (1004.1.1)

Minimum number of exits = 2 (1015.1) Number of exits provided = 1 Number of exits inadequate.

The maximum occupant load of this area is required to be posted on an approved sign at 66.66666 occupants in a conspicuous place near the main exit or exit access doorway. (1004.3)

Minimum exit width = 13.3 inches. (1005.1) Width of exits provided = 36.0 Width of exits ok.

Common path of egress travel = .0 feet (1014.3 and 1015.1)

The maximum length of exit access is 200 feet. (Table 1016.1) The travel distance of 21 is ok.

Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)

Egress doors shall swing in the direction of egress travel. (1008.1.2)

Exception 5: Revolving doors complying with Section 1008.1.4.1

Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3

Exception 7: Power-operated doors complying with Section 1008.1.4.2

Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.

Exits and exit access doors shall be marked by and approved exit sign readily from any direction of egress travel. (1011.1)

Means of egress doors from this area require panic hardware or fire exit hardware. (1008.1.10)

There is no corridor in this area.

Minimum number of plumbing fixtures: (2902.1)

Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

2nd FLOOR RESULTS:

Area on this floor = 3,500.0 Floor allowed area = 31,155.5 Floor ratio = .11 (506)

Number of occupants = 91.7

Minimum number of exits = 2 (Table 1021.1) Number of exits provided = 2 Number of exits ok.

Minimum door exit width = 18.3 inches. (1005.1) Minimum stair exit width = 27.5 inches. (1005.1) Width of exits provided = 72.0 inches. Width of exits ok.

Common path of egress travel = 22.0 feet.

The maximum length of exit access travel is 200.0 feet. (Table 1016.1) Actual egress travel = 55.0 Travel distance is ok.

Egress doors shall swing in the direction of egress travel. (1008.1.2)

Exits and exit access doors shall be marked by and approved exit sign readily from any direction of egress travel. (1011.1)

Means of egress doors from this floor require panic hardware or fire exit hardware. (1008.1.10)

Corridor(s) in this area are required to have a fire-resistive rating 1 hour. (1018.1)

Minimum number of plumbing fixtures: (2902.1)

When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.

Water closets: Male = 1 Female = 2 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

AREAS ON THE 1st FLOOR

Office: Occupancy Group = B Actual floor area = 10,000.0 Allowed floor area = 40,375.0 Ratio = .25 (1018.1)

Number of occupants = 100.0 Based on 100 square feet per occupant. (1004.1.1)

Minimum number of exits = 2 (1015.1)

Minimum exit width = 20.0 inches. (1005.1)

Common path of egress travel = .0 feet (1014.3 and 1015.1)

The maximum length of exit access is 200 feet. (Table 1016.1) Actual travel distance not entered.

Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)

Egress doors shall swing in the direction of egress travel. (1008.1.2)

Exception 5: Revolving doors complying with Section 1008.1.4.1

Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3

Exception 7: Power-operated doors complying with Section 1008.1.4.2

Exception 9: Manually operated horizontal sliding doors are permitted from spaces with an occupant load of 10 or less.

Exits and exit access doors shall be marked by and approved exit sign readily from any direction of egress travel. (1011.1)

There is no corridor in this area.

Minimum number of plumbing fixtures: (2902.1)

Water closets: Male = 2 Female = 2 Lavatories: Male = 2 Female = 2 Drinking fountains = 1

Warehouse: Occupancy Group = S1 Actual floor area = 20,000.0 Allowed floor area = 36,833.3 Ratio = .54 (1008.1.10)

Number of occupants = 40.0 Based on 500 square feet per occupant. (1004.1.1)

Minimum number of exits = 2 (1015.1) Number of exits provided = 1 Number of exits inadequate.

Minimum exit width = 8.0 inches. (1005.1) Width of exits provided = 36.0 Width of exits ok.

Common path of egress travel = .0 feet (1014.3 and 1015.1)

The maximum length of exit access is 200 feet. (Table 1016.1) The travel distance of 45 is ok.

Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)

Egress doors may swing in either direction. (1008.1.2)

Exception 5: Revolving doors complying with Section 1008.1.4.1

Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3

Exception 7: Power-operated doors complying with Section 1008.1.4.2

Exits and exit access doors shall be marked by and approved exit sign readily from any direction of egress travel. (1011.1)

There is no corridor in this area.

Minimum number of plumbing fixtures: (2902.1)

Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

Sales area: Occupancy Group = M Actual floor area = 4,000.0 Allowed floor area = 26,208.3 Ratio = .15 (1008.1.10)

Number of occupants = 133.3 Based on 30 square feet per occupant. (1004.1.1)

Minimum number of exits = 2 (1015.1) Number of exits provided = 2 Number of exits ok.

Minimum exit width = 26.7 inches. (1005.1) Width of exits provided = 72.0 Width of exits ok.

Common path of egress travel = .0 feet (1014.3 and 1015.1)

The maximum length of exit access is 200 feet. (Table 1016.1) The travel distance of 67 is ok.

Egress doors shall be of the pivoted or side-hinged swinging type. (1008.1.2)

Egress doors shall swing in the direction of egress travel. (1008.1.2)

Exception 5: Revolving doors complying with Section 1008.1.4.1

Exception 6: Horizontal sliding doors complying with Section 1008.1.4.3

Exception 7: Power-operated doors complying with Section 1008.1.4.2

Exits and exit access doors shall be marked by and approved exit sign readily from any direction of egress travel. (1011.1)

There is no corridor in this area.

Minimum number of plumbing fixtures: (2902.1)

Water closets: Male = 1 Female = 1 Lavatories: Male = 1 Female = 1 Drinking fountains = 1

1st FLOOR RESULTS:

Area on this floor = 34,000.0 Floor allowed area = 36,044.2 Floor ratio = .94 (506)

Number of occupants = 273.3

Minimum number of exits = 2 (Table 1021.1) Number of exits provided = 2 Number of exits ok.

Minimum door exit width = 54.7 inches. (1005.1) Width of exits provided = 72.0 inches. Width of exits ok.

Common path of egress travel = 23.0 feet.

The maximum length of exit access travel is 200.0 feet. (Table 1016.1) Actual egress travel = 65.0 Travel distance is ok.

Egress doors shall swing in the direction of egress travel. (1008.1.2)

Exits and exit access doors shall be marked by and approved exit sign readily from any direction of egress travel. (1011.1)

Corridor(s) in this area are required to have a fire-resistive rating 1 hour. (1018.1)

Minimum number of plumbing fixtures: (2902.1)

When providing fixtures for the entire floor, use these numbers. When areas have their own fixtures, use number of fixtures listed per area.

Water closets: Male = 3 Female = 3 Lavatories: Male = 2 Female = 2 Drinking fountains = 2

Total building and fire area of building (502.1 & 505.1) = 37,500.0 Building allowed area = 72,088.3 Building ratio = .5

EXIT SEPARATION:

In areas where 2 exits are required, the minimum separation is 1/2 of the maximum diagonal of the area or floor measured in a straight line between exits or exit access doorways. (1015.2.1)
Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity by more than 50 percent. (1005.1)

CORRIDOR REQUIREMENTS:

1. Corridors shall have a ceiling height of not less than 7 feet 6 inches. (1003.2)
2. The minimum corridor width is 44 inches. Sec. 1018.2
Exception 2: The minimum corridor width is 36 inches where the occupant capacity is less than 50.
3. If fire-resistive rating is 1 hour or 1/2 hr, walls shall comply with Section 709 for fire partitions. (1018.1) Walls shall extend to the underside of the floor/roof slab or deck or to the fire-resistance rated floor/ceiling or roof/ceiling assembly above. (709.4)
Exception 2: Where the room-side membrane is carried through to the underside of a fire resistance rated floor or roof, the ceiling of the corridor shall be permitted to be protected by the use of ceiling materials as required for a 1-hour rated system or the ceiling shall be constructed as required for the corridor walls.
4. Door openings are required to be protected with 20 minute (1/3 hour) fire assemblies. (715.4.3 & Table 715.4)
5. Doors shall be self-closing or automatic-closing. (715.4.8)
6. Doors shall have an active latch bolt that will secure the door when closed. (715.4.8.1)
7. Window openings are required to be protected with labeled 45 minute (3/4-fire-hour) fire-assemblies. (715.5 & Table 715.5)
Exception: Glazing in 1/2-hour walls is permitted to have an 1/3-hour rating.
8. The total area of windows shall not exceed 25 percent of the area of a common wall with any room. (715.5.8.2)
9. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts or plenums. (1018.5), See Exceptions
10. Fire resistant corridors shall not be interrupted by intervening rooms. (1018.6)
Exception: Foyers, lobbies or reception rooms constructed as required for corridors.
11. When more than one exit is required, exit access shall be arranged such that there are no dead ends in corridors more than 20 feet. (1018.4)

ADDITIONAL DOORS:

Where additional doors are provided for egress purposes, they shall conform to the requirements in Section 1008. (1008.1)

LANDINGS AT DOORS:

1. There shall be a floor or landing on each side of a door. (1008.1.5)
2. Such floor or landing shall be at the same elevation on each side of the door. (1008.1.5)
3. The floor or landing shall not be more than 1/2 inch lower than the threshold. (1008.1.7)
4. Landings shall have a width not less than the width of the stairway or width of the doorway, whichever is the greater.
Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing dimension to less than one half it required width. The minimum length in the direction of exit travel is 44 inches. (1008.1.6)
5. The space between two doors in series shall be 48 inches plus the width of door swinging into the space. (1008.1.8)

BOLT LOCKS:

- Manually operated flush bolts and surface bolts are not permitted. (1008.1.8.4)
Exception 3: Where a pair of doors serves an occupant load of less than 50, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
Exception 2: Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
The unlatching of any door or leaf shall not require more than one operation. (1008.1.9.5)
Exception 2: Where manually operated bolt locks are permitted.
Exception 3: Doors with automatic flush bolts as permitted.

LOCKS AND LATCHES:

- Egress doors shall be readily openable from the egress side without the use of a key or any special knowledge or effort. (1008.1.9)
Locks and latches shall be permitted to prevent operation where any of the following exists: (1008.1.9.3)
2. The main door or doors in Group B, F, M and S areas are permitted to be equipped with key operating locking devices from the egress side provided:
2.1 The locking device is readily distinguishable as locked.

2.2 A readily visible durable sign is posted on the egress side stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED

3. Where egress doors are used in pairs, automatic flush bolts shall be permitted to be used, provided the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.

5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism.

DELAYED EGRESS LOCKS:

Note: Building must have an automatic sprinkler system or an approved automatic smoke and heat detection system. (1008.1.9.7)

Delayed egress lock are not permitted to be installed on doors in Group A occupancies. (1008.1.9.7)

STAIRWAY REQUIREMENTS:

1. The minimum width of a stairway is 44 inches. (1009.1)

Exception 1 If the occupant load is less than 50, the minimum width is 36 inches.

Check floor exit requirements above to see if minimum width is greater than 44 inches.

When stairways are part of an accessible means of egress, the stairway shall have a clear width of 48 inches. (1007.3)

2. The riser heights shall not be less than 4 inches or greater than 7 inches. The minimum tread depth is 11 inches. (1009.4.2) The maximum variation is 3/8 inch between the largest and the smallest in a stairway flight. (1009.4.4)

Risers shall be solid. (1009.4.5)

Exception 2: Solid risers are not required in areas not accessible to the public. There are no restrictions on the size of the opening in the riser.

3. Provide a handrail on each side of stairways. (1009.12)

4. Handrail height, measured above stair tread nosing, shall be not less than 34 inches and not more than 38 inches. (1012.2)

See Section 1012.3 for graspability requirements.

Handrail-gripping surfaces shall be continuous without interruption by newel post or other obstructions. (1012.4)

Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight. (1012.6)

Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser top riser and continue to slope for the depth of one tread beyond the bottom riser. (1012.6)

5. The minimum headroom clearance is 80 inches (6 ft.- 8 inches.) measured vertically from a line connecting the edge of the nosing. Headroom shall be continuous to the point where the line intersects the landing below. The minimum clearance shall be maintained the full width of the stairway and landing. (1009.2)

6. Enclosed usable space under the stairs is required to be protected by 1-hour fire-resistive construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stair enclosure. (1009.6.3)

7. A flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings. (1009.7)

GUARDS:

1. Open sides of walking surfaces, including stairs, ramps and landings, which are located more than 30 inches above the floor or grade below are required to have a guard. (1013.1)

2. Guards and handrails shall be adequate in strength and attachment to resist a load of 50 pounds per linear foot applied in any direction at the top and to transfer this load through the supports to the structure. (1013.1 and 1607.7.1)

Handrails and guards shall be able to resist a single concentrated load of 200 pounds, applied in any direction at any point along the top, and transfer this load through the supports to the structure. (1607.7.1.1)

3. Intermediate rails, balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot, including openings and space between rails. Reactions due to this loading are not required to be superimposed with those of Sections 1607.7.1 or 1607.7.1.1. (1607.7.1.2)

4. The minimum height is 42 inches above the adjacent walking surfaces, adjacent fixed seating or the line connecting the leading edges of the treads. (1013.2)

5. Guards shall not have openings which allow passage of a sphere 4 inches in diameter from the walking surface to the required guard height. (1013.3)

Exception 1: From the height of 36 inches to 42 inches, guards shall not have openings which allow passage of a sphere 4 3/8 inches in diameter.

Exception 2: The triangular opening formed at the riser, tread and guardrail may be 6 inches.

Exception 3: Areas which are not open to the public within I-3, F, H, or S occupancies, balusters, horizontal intermediate rails, or other construction shall not permit a sphere with a diameter of 21 inches to pass through.

STAIRWAY ENCLOSURES:

2. The openings into the exit enclosure are required to be 1 hour fire assemblies. (Table 715.4)

Openings into enclosure are limited to those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure. (1022.3) Doors shall be self-closing or automatic closing. (715.4.8)

3. Exit enclosure must discharge directly to the exterior of the building. (1022.2 & 1027.1)

Exception: An exit enclosure shall be permitted to terminate at an exit passageway that terminates at an exit discharge or public way.

A maximum of 50 percent of the number and capacity may exit through areas on the level of discharge provided

Exception 1 or 2 is met: (1027.1)

Exception 1:

1.1 There is a free and unobstructed way to the exterior that is readily visible and identifiable from the exit enclosure.

1.3 The egress path from the enclosure and all portions of the level of discharge with access to the egress path are protected with an automatic sprinkler system or separated from the egress path as required for an exit enclosure.

Exception 1:

2.2 The depth from the exterior of the building is not greater than 10 feet and the length is not greater than 30 feet.

2.3 The vestibule is separated from the remainder of the level of exit discharge by construction providing at least the equivalent of approved wired glass in steel frames.

2.4 The vestibule is used only for means of egress and exits directly to the outside.

4. An exit enclosure shall not be used for any purpose other than means of egress. (1022.1)

Note: Where interior exit enclosures are extended to the exterior of the building by an exit passage way, fire-resistance of the exit passage way shall be the same as the enclosure. (1022.2, Exception)

1. Stairways are required to be enclosed with 1 hour fire barriers. (1022.1)

ELEVATOR REQUIREMENTS:

1. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. (3002.3)

Exception 1: Sign not required for elevators that are part of an accessible means of egress complying with Section 1007.4

Exception 2: Sign not required for elevators that are used for occupant self-evacuation in accordance with Section 3008.

Elevators shall have a fire resistance rating. (3002.1)

Elevator shaft shall have a fire-resistance rating of not less than 1 hours. (708.4)

Exception: Exterior walls shall comply with exterior wall requirements. (708.6)

Openings shall be self-closing or automatic closing by smoke detection. (708.7)

Fire door assemblies are required to have a fire-protection rating of 1 1/2 hour. (715.4)

Penetrations other than those necessary for the purpose of the shaft shall not be permitted. (707.8.1)

Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1/CSA B44 (3003.2)

BUILDING ACCESSIBILITY

1. In addition to accessible entrances required by Sections 1105.1.1 through 1105.1.6, at least 60 percent of all public entrances shall be accessible. (1105.1)

2. At least one accessible entrance shall be provided to each tenant, dwelling unit and sleeping unit in a facility. (1105.1.6)

3. Where parking is provided, accessible parking spaces shall be provided in compliance with Table 1106.1 (1106.1)
See additional requirements for outpatient and rehabilitation facilities. (1106.3 and 1106.4)

4. At least one accessible route shall connect each accessible level. (1104.4) See exceptions.

5. Accessible routes shall coincide with or be located in the same area as a general circulation path. Where the circulation path is interior, the accessible route shall also be interior. (1104.5)

6. On floors where drinking fountains are provided, no fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons. (1109.5.1)

Exception: A single drinking fountain that complies with both requirements shall be permitted.

Where more than 2 drinking fountains are provided, at least 50% shall be accessible. (1109.5.2)

Exception: Where 50% yields a fraction, the number may be rounded up or down. Total must be equal to 100% or required.

FIRE-RESISTANCE RATING FOR EXTERIOR WALLS:

North Side:

Group S1 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)

Parapet not required (705.11, Exception 1)

No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)

Parapet not required (705.11, Exception 1)

No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group M - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required (705.11, Exception 1)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required (705.11, Exception 1)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

East Side:

Group S1 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required (705.11, Exception 1)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group B - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required (705.11, Exception 1)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group M - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required (705.11, Exception 1)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 0-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet not required (705.11, Exception 1)
No limit on unprotected openings. There is no limit on protected openings. (Table 705.8)

South Side:

Group S1 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 70% of wall area. There is no limit on protected openings. (Table 705.8)
Group B - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 70% of wall area. There is no limit on protected openings. (Table 705.8)
Group M - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 70% of wall area. There is no limit on protected openings. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on the inside. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 70% of wall area. There is no limit on protected openings. (Table 705.8)

West Side:

Group S1 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on both sides. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 10% of wall area. Maximum protected openings = 25% of wall area. (Table 705.8)
Group B - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on both sides. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 10% of wall area. Maximum protected openings = 25% of wall area. (Table 705.8)
Group M - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on both sides. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 10% of wall area. Maximum protected openings = 25% of wall area. (Table 705.8)
Group A3 - Bearing walls = 2-hr Nonbearing walls = 1-hr rating on both sides. (705.5, Tables 601 & 602)
Parapet or roof/ceiling protection required (705.11, Exception 4)
Maximum unprotected openings = 10% of wall area. Maximum protected openings = 25% of wall area. (Table 705.8)

FIRE-RESISTANCE RATING REQUIREMENTS:(Table 601 except as noted)

Primary structural frame may be of any material .Minimum fire resistance rating = 1 hour
Interior bearing wall may be of any material .Minimum fire resistance rating = 1 hour
Interior nonbearing wall may be of any material .Minimum fire resistance rating = 0 hr
may be of any material .Minimum fire resistance rating = 1 hour
Floor/ceiling assembly may be of any material .Minimum fire resistance rating = 1 hour
Roof/ceiling assembly may be of any material .Minimum fire resistance rating = 1 hour
Heavy timber shall be permitted where a 1 hour or less fire rating is required. (Table 601, c)
Shaft Enclosure may be of any material .Minimum fire resistance rating = 1 hour
Stairs may be of any material .Minimum fire resistance rating = 0 hour

Where columns are required to be fire-resistance rated, the entire column shall be provided individual encasement protection on all sides for the full length. (704.2)

Where the primary structural frame is required to be fire-resistance rated, and supports more than two floors or one floor and a roof, members shall be provided individual encasement protection on all sides for the full length. (704.3)
Secondary members shall be protected by individual encasement protection, by the membrane or ceiling of a horizontal assembly. (704.4)

MARKING AND IDENTIFICATION:

Fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified. (703.6)

Identification shall be located in accessible concealed floor, floor-ceiling or attic spaces;

Be repeated at intervals not exceeding 30 feet; and

Suggested wording: 'FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS'

PENETRATIONS OF FIRE RESISTIVE ASSEMBLIES:

WALLS ASSEMBLIES:

Through penetrations of walls shall comply Section 713.3.1.1 or 713.3.1.2.

1. Penetrations shall be installed as tested in the fire resistance rated assembly. (713.3.1.1)

2. Penetrations shall be protected by an approved penetration firestop system. (713.3.1.2)

Exception:

Steel, ferrous or copper pipes or steel conduits. See IBC for limitations.

Membrane penetrations of walls:

The requirements are the same as for through penetrations. (713.3.2)

Exceptions:

1. Steel electrical outlet boxes that do not exceed 16 square inches provided that the area of such openings does not exceed 100 square inches for any 100 square feet of wall area. Boxes on opposite sides of the assembly shall be separated by a horizontal distance of not less than 24 inches.

2. Listed electrical boxes.

3. Sprinklers with metal escutcheon plates.

FLOOR/CEILING AND ROOF/CEILING ASSEMBLIES:

Through penetrations of floor/ceiling and roof/ceiling assemblies shall comply Section 713.4.1.1 or 713.4.1.2.

1. Through penetrations shall be installed as tested in an approved fire resistance rated assembly. (713.4.1.1)

2. Penetrations shall be protected by an approved penetration firestop system of not less than 1 hour but not less than the required rating of the floor penetrated. (713.4.1.2)

Exceptions:

1. Steel, ferrous or copper conduits, pipes, tubes and vents through a single concrete floor. See IBC for limitations.

2. Electrical outlet boxes that have been tested for use in fire-assemblies.

Membrane penetrations of fire-resistive horizontal assemblies:

The requirements are the same as for through penetrations. (713.4.2)

Exceptions:

1. Steel, ferrous or copper conduits, electrical outlet boxes, pipes, tubes and vents through concrete or masonry. See IBC for limitations.

2. Electrical outlet boxes that have been tested for use in fire-assemblies.

3. Sprinklers with metal escutcheon plates.

DUCTS AND AIR TRANSFER OPENINGS:

Dampers shall be accessible for inspection and servicing. (716.4)

Where required. (716.5) , Fire walls (716.5.1), Fire barriers (716.5.2), Shaft enclosures (716.5.3), Fire partitions (715.5.4) and Smoke barriers (715.5.5)

REQUIRED SEPARATION OF OCCUPANCIES: (508.4.4 & Table 508.4)

Between occupancy S1 and A3, a 2-hour fire barrier is required. (Table 508.4)

Openings in this fire barrier are required to be protected with 1 1/2 hour fire assemblies. (Table 715.4)

Between occupancy B and A3, a 2-hour fire barrier is required. (Table 508.4)

Openings in this fire barrier are required to be protected with 1 1/2 hour fire assemblies. (Table 715.4)

Between occupancy M and A3, a 2-hour fire barrier is required. (Table 508.4)

Openings in this fire barrier are required to be protected with 1 1/2 hour fire assemblies. (Table 715.4)

Accessory occupancies shall not occupy more than 10% of the area of the story where they are located and shall not exceed the values in Table 503 without increases. (508.2.1)

No separation is required between accessory occupancies or the main occupancy. (508.2.4)

SEPARATION OF INCIDENTAL USE AREAS: (Table 508.2.5)

Furnace rooms where any piece of equipment is over 400,000 BTU per hour input = 1 hour

Rooms with any boiler over 15 psi and 10 horsepower = 1 hour and Refrigerant machinery rooms = 1 hour

Hydrogen cut-off rooms not classified as Group H = 1 hour

Incinerator rooms = 2 hours and an automatic sprinkler system is required

Paint shops not classified as Group H = 2 hours

Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupted power supplies = 1 hour

Rooms containing fire pumps = 2 hour

Areas containing high piled combustible stock or rack storage in any occupancy group require smoke and heat vents.

Design to comply with the International Fire Code. (910.2.3)

ROOFING REQUIREMENTS:

1. The roofing on this building is required to be Class B or better. (Table 1505.1)

DRAFTSTOPPING:

If there is combustible construction in the floor/ceiling assembly, draftstopping shall be installed so that the area of concealed space does not exceed 1,000 square feet. (717.3.3)

If there is combustible construction in the roof/ceiling assembly, draftstopping shall be installed so that the area of concealed space does not exceed 3,000 square feet. (717.4.3)

Opening in the partitions shall be protected by self-closing doors with automatic latches constructed as required for the partitions. (717.4.1.1)

AUTOMATIC SPRINKLER SYSTEMS:

An automatic sprinkler system is required where a fire area containing Group S-1 exceeds 12,000 square feet or the combined fire area on all floors exceeds 24,000 square feet. (903.2.9 #1, #3)

An automatic sprinkler system is required in M occupancies used for the display and sale of upholstered furniture. (903.2.7 #4)

An automatic sprinkler system shall be provided in accordance with the IFC in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays. (903.2.7.1)

An automatic sprinkler system is required in the A-3 fire area when the fire area is located on a floor other than the level of exit discharge. (903.2.1.3, #3)

When provided, fire pumps shall be located in rooms that are separated from all other areas by 2-hour fire barrier construction. (913.2.1)

PORTABLE FIRE EXTINGUISHERS:

Portable fire extinguishers are required. (906.1)

See Section 906.1 and Table 906.1 for location requirements.

See Section 906.3 for size and distribution requirements.

STANDPIPE AND HOSE SYSTEMS:

A standpipe system is not required. (905)

Areas containing high piled combustible stock or rack storage in any occupancy group require smoke and heat vents.

Design to comply with the International Fire Code. (910.2.3)

LIGHT AND VENTILATION:

1. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings or shall be provided with artificial light. (1205.1)

When natural light is provided, the minimum net glazed area shall not be less than 8% of the floor area. (1205.2)

Any room is permitted to be considered as a portion of an adjoining room where one half of the area of the common wall is open and unobstructed and provided not less than one tenth of the floor area or 25 square feet, whichever is greater. (1205.2.1)

When artificial light is used, it must provide an average illumination of 10 foot candles over the area of the room at a height of 30 inches above the floor. (1205.3)

2. Buildings shall be provided with natural ventilation or mechanical ventilation per the International Mechanical Code. (1203.1)

Natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. (1203.4)

The minimum openable area to the outdoors shall be 4 percent of the floor area. (1203.4.1)

Any room is permitted to be considered as a portion of an adjoining room where unobstructed openings are provided that have an area not less than 8% of the floor area of the interior room but no less than 25 square feet. (1202.3.1.1)

When openings are below grade, clear space measured perpendicular to the opening shall be one and one half times the depth of the opening. (1203.4.1.2)

3. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated. (1203.4.2.1)

GLAZING REQUIREMENTS:

All glazing in hazardous locations is required to be of safety glazing material. (2406.1)

Locations: (2406.4)

1. Glazing in swinging doors except jalousies.

2. Glazing in fixed and sliding panels of sliding door assemblies and panels in sliding and bifold closet door assemblies.

3. Glazing in storm doors.

4. Glazing in all unframed swinging doors.

5. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any portion of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches above a standing surface.

6. Glazing in fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within a 24-inch arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches above the walking surface.

Exception: Panels where there is an intervening wall or other permanent barrier between the door and glazing.

7. Glazing in an individual fixed or operable panel, other than those locations described in items 5 and 6 above, than meets all of the following conditions:

7.1 Exposed area of an individual pane greater than 9 square feet.

7.2 Exposed bottom edge less than 18 inches above the floor.

7.3 Exposed top edge greater than 36 inches above the floor.

7.4 One or more walking surfaces within 36 inches horizontally of the plane of the glazing.

See Exceptions.

8. Glazing in guards and railings regardless of the area or height above a walking surface.

9. Glazing in walls and fences enclosing indoor and outdoor swimming pools, hot tubs and spas where all of the following are present:

9.1 The bottom edges of the glazing on the pool or spa side is less than 60 inches above the walking surface.

9.2 The glazing is within 60 inches of the water's edge.

10. Glazing adjacent to stairways, landings and ramps within 36 inches horizontally of a walking surface when the glass is less than 60 inches above the plane of the walking surface.

11. Glazing adjacent to stairways within 60 inches horizontally of the bottom tread of a stairway in any direction when the exposed glass is less than 60 inches above the nose of the tread.

See Exceptions.

WALL AND CEILING FINISH:

1. Wall and ceiling finish materials are required to comply with Sec. 803.9 and Table 803.9.

2. Textile wall and ceiling coverings shall have Class A flame spread index and shall be protected by automatic sprinklers or meet the criteria in Section 803.5, 803.6 and 803.1.4.

3. Expanded vinyl wall coverings shall comply with the requirements for textile wall and ceiling materials. (803.7)

4. Toilet room floors shall have a smooth, hard nonabsorbent surface that extends upward onto the walls at least 4 inches. (1210.1)

5. Walls within 2 feet of urinals and water closets shall have a smooth, hard nonabsorbent surface, to a height of 4 feet above the floor. (1210.2)

CEILING HEIGHTS:

Occupiable spaces, habitable spaces and corridors shall have a ceiling height of not less than 7 feet 6 inches.

Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet. (1208.2)

INSULATION NOTES:

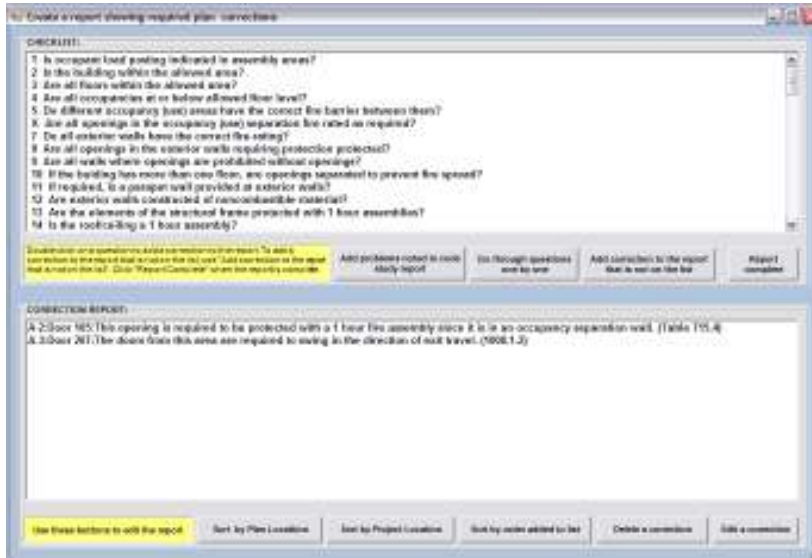
1. Insulating materials shall have a flame-spread rating of no more than 25 and a smoke developed index of not more than 450. (719.2) 'concealed installation' and Sec. 719.3 'exposed installation'

Foam plastic insulations are required to be protected. (2603)

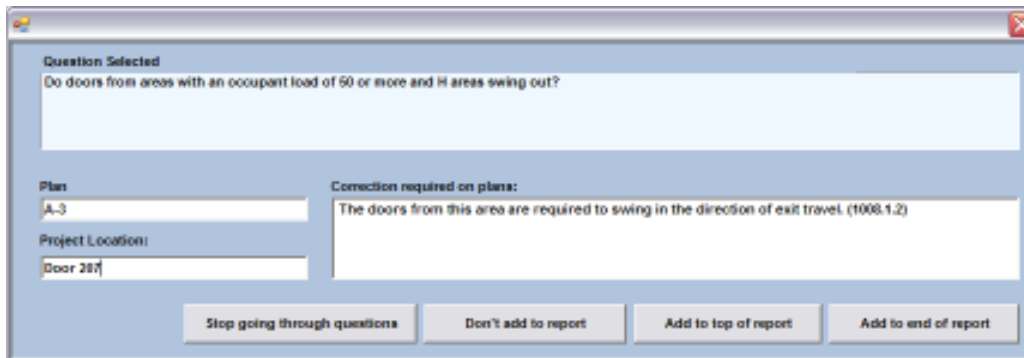
CORRECTION REPORT

PLAN ANALYST CREATES A CHECKLIST FOR THIS PROJECT. THE QUESTIONS IN THE CHECKLIST ARE SELECTED BASED ON THE CODE STUDY SO YOU WILL NOT BE ASKED QUESTIONS THAT DO NOT APPLY TO THIS PROJECT.

YOU MAY EITHER SCROLL THROUGH THE LIST AND PICK QUESTIONS BASED ON YOUR REVIEW OF THE PLANS OR CLICK THE **GO THROUGH QUESTIONS ONE BY ONE** BUTTON AND PLAN ANALYST WILL LEAD YOU THROUGH EACH QUESTION ON THE CUSTOMIZED LIST.



WHEN YOU NOTE A PROBLEM ON THE PLANS, THE FOLLOWING SCREEN IS DISPLAYED. YOU ENTER THE PROBLEM ON THE PLANS AND IDENTIFY THE PROJECT LOCATION.



WHEN YOU HAVE COMPLETED THE LIST OF QUESTIONS, CLICK THE **REPORT COMPLETE BUTTON**. THIS WILL CREATE THE CORRECTION REPORT. TO REVIEW THE CORRECTION REPORT, CLICK THE **REQUIRED CORRECTIONS TAB** ON THE MAIN SCREEN TO REVIEW THE REPORT.

EXAMPLE OF AN IBC CORRECTION REPORT

THIS CORRECTION REPORT WAS CREATED USING THE INFORMATION THAT YOU SAW INPUT IN THIS EXAMPLE – NOTICE HOW SIMPLE THE INPUT WAS AND HOW COMPLETE THE REPORT IS!

Your Firm or Jurisdiction Name

Your Department

Your address

Your City, State Zip Code

Your Phone numbers(s)

Project Description: 1234-09 Example of an Office Building Date: Thursday, 2 Jul 2009

Project Location: 4210 Golf Club Drive

Construction by: ZZZ Construction Architect: HHH Architects Engineer: JJJ Engineers

Code Study by: Ben Weese

The corrections listed below are required for the plans to comply with the 2006 International Building Code (IBC) by ICC.

- 1 SD-1 : : All sheets to be stamped and signed by a design professional registered in this state. (107.1)
- 2 A-5 : Warehouse Ceiling : This roof/ceiling is required to be a 1 hour assembly. (Table 601)
- 3 A-2,A-7 : Door 105 : This opening is required to be protected with a 1 hour fire assembly since it is in an occupancy separation wall. (Table 715.4)
- 4 A-2,A-7 : Door 207 : The doors from this area are required to swing in the direction of exit travel. (1008.1.2)
- 5 A-4 : Ceiling of corridor 203 : The ceiling of this corridor is required to have a 1-hour fire-resistive rating. (1018.1 and Table 1018.1)
- 6 S-1 : : Include a copy of the foundation and soils investigation for the site to be built on. (1803.2)

ALL DIGITAL (PAPERLESS) CODE STUDIES

WHAT IS NEEDED?

1. COMPUTER WITH 2 MONITORS CONNECTED (1 TO DISPLAY PLAN ANALYST AND 1 TO DISPLAY AUTODESK) OR 1 LARGE SCREEN THAT DISPLAYS BOTH PLAN ANALYST AND AUTODESK DESIGN REVIEW.
2. PLAN ANALYST SOFTWARE
3. AUTODESK DESIGN REVIEW SOFTWARE (CURRENTLY, FREE OF CHARGE FROM AUTODESK)



USE THE FEATURES OF AUTODESK DESIGN REVIEW TO GET INFORMATION (DIMENSIONS, SQUARE FEET, ETC). ENTER THE INFORMATION INTO PLAN ANALYST. AS YOU CREATE THE CORRECTION REPORT, COPY AND PASTE REQUIRED CORRECTIONS FROM PLAN ANALYST TO THE CALLOUT BOXES IN AUTODESK DESIGN REVIEW. USING THIS SYSTEM, YOU HAVE REVIEWED THE PLANS WITHOUT HANDLING A PAPER COPY OF THE PLANS.

THIS SYSTEM SPEEDS UP THE PLAN CHECK PROCESS, ADDS CONVENIENCE AND A POPULAR **GREEN FACTOR** FEATURE.

ADJUSTING PLAN ANALYST FOR LOCAL REQUIREMENTS

EDIT CODE STUDY REQUIREMENTS

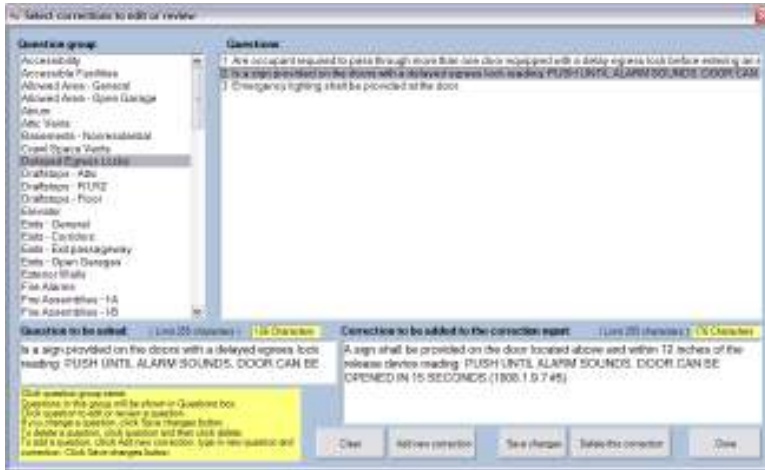


THIS ALLOWS YOU TO REVIEW OR CHANGE CODE REQUIREMENTS FOR CODE STUDIES. YOU CAN CHANGE WORDING TO MATCH LOCAL REQUIREMENTS OR YOUR PREFERRED WORDING.

- CLICK **REQUIREMENT NAME** IN LEFT BOX.
- CORRESPONDING CODE REQUIREMENTS WILL BE SHOWN IN THE RIGHT BOX. YOU MAY EDIT THE REQUIREMENT BEFORE SAVING.
- CLICK THE **SAVE CHANGES** BUTTON AFTER EDITING EACH REQUIREMENT.
- CLICK ANOTHER REQUIREMENT **NAME** OR CLICK THE **DONE** BUTTON.

EDIT QUESTIONS FOR CORRECTION REPORT

YOU CAN ADD, MODIFY OR DELETE QUESTIONS ASKED DURING THE CREATION OF EACH NEW CORRECTION REPORT. THIS ALLOWS YOU TO ADJUST QUESTIONS TO SHOW LOCAL CONDITIONS OR PREFERENCES.



TO EDIT A QUESTION

1. SELECT QUESTION GROUP.
2. SELECT QUESTION.
3. EDIT QUESTION/CORRECTION IN BOXES AT BOTTOM OF SCREEN.
4. SAVE CHANGES

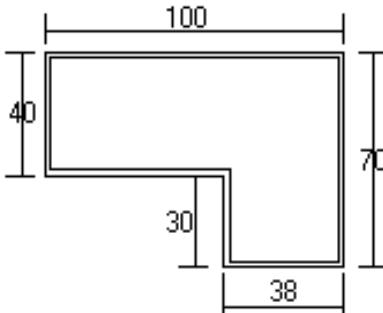
TO ADD A QUESTION

1. TYPE IN NEW QUESTION AND CORRECTION.
2. CLICK ADD CORRECTION BUTTON.

SPECIAL CALCULATOR FEATURE

USING THE CALCULATOR

WHEN NUMBERS, SUCH AS DIMENSIONS AND SQUARE FOOTAGE, ARE REQUIRED, A FOUR-FUNCTION CALCULATOR IS BUILT INTO PLAN ANALYST. USE THE **+** FOR ADDITION **-** FOR SUBTRACTION **x** OR ***** FOR MULTIPLICATION AND **/** FOR DIVISION. ALGEBRAIC LOGIC IS USED (I.E. DIVISION AND MULTIPLICATION ARE ALWAYS DONE BEFORE ADDITION AND SUBTRACTION)



THERE IS NO NEED TO REACH FOR YOUR CALCULATOR. WHEN ASKED FOR THE FLOOR AREA ENTER: $100 \times 40 + 30 \times 38$ AND THE FLOOR AREA WILL BE CALCULATED FOR YOU.

ENTERING DIMENSIONS

DIMENSIONS MAY BE ENTERED USING EITHER DECIMALS OF A FOOT (**10.4167**) OR BY USING THE FEET_INCHES (**10_5**) FORMAT. FOR 10 FEET 5 INCHES, YOU ENTER EITHER **10.4167** OR **10_5**.