



# The code implications of Churches in Shopping Centers

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Based on the IBC

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# The Problem:

- The customers want to operate a Church, which is an Assembly use in a space designed for Business and Mercantile uses.
- The church is not building anything, just changing out finishes.
- There is no registered professional involved.
- There is budgetary concerns.
- There is a limited knowledge and tolerance for the permitting process.



# The Building Department's Concerns:

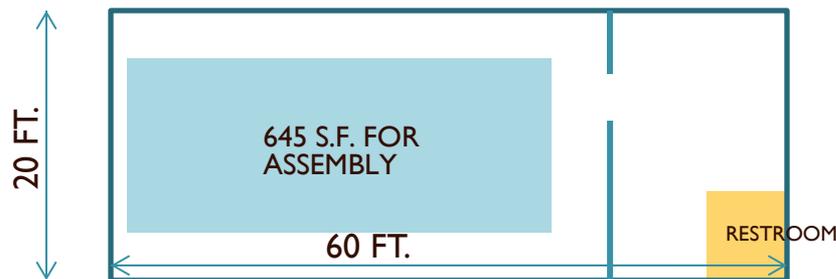
- If you overly discourage or alienate these groups they will operate in residential areas or warehouses or other unsuitable environments. They may operate covertly in shopping centers.
- This can cause code enforcement actions which are costly
- This can cause unsafe conditions and tragedies.
- The Landlords need these tenants because the independent business and stores from the past are gone. Therefore, they are motivated to rent the spaces to anyone, whether they are suited or not. The landlord is not part of the permitting process.

# The building systems affected:

- Occupancy calculations
- Required exits
- Sprinkler requirements
- Kitchenettes to serve/prepare food for large groups
- Plumbing facilities
- Separation requirements for mixed use and area modifications.
- Mechanical ventilation
- Parking

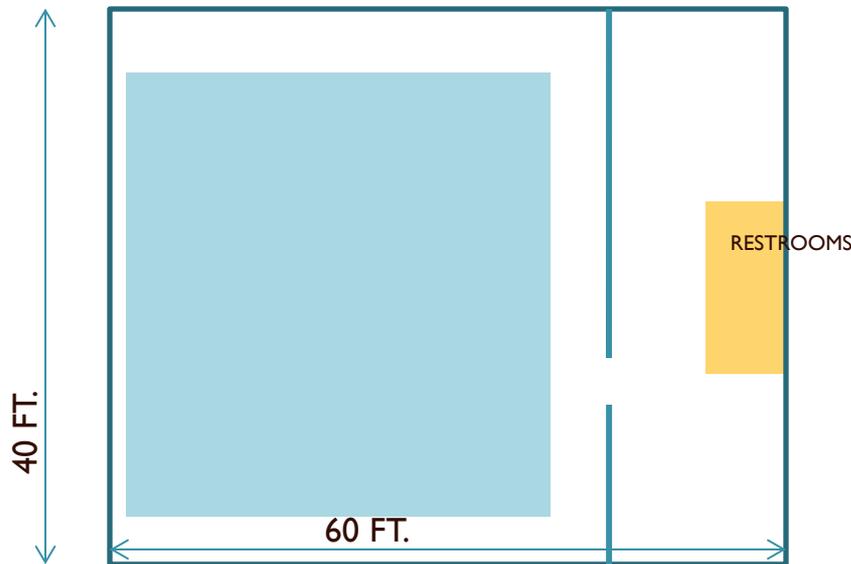
# Occupancy Calculations:

- 2400 s.f. space, unsprinklered, 49 people
- Section 303.1 exception 1: a tenant space used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy.
- Assembly without fixed seats (table 1004.1.1) 1 person/7 s.f. or 1 person per 15 s.f. net. The remainder is business occupancy.
- $A + B = 49$  1200 s.f. =  $15A + 100B$  so  $A = 49 - B$
- $1200 = 15(49 - B) + 100B$  so  $1200 = 735 - 15B + 100B$
- $465 = 85B$  so  $B = 5.5$  people or 6 (partial people are messy)
- Assembly area is  $43 \times 15 = 645$  s.f.



# Occupancy Calculations:

- 2400 s.f. retail or office space, unsprinklered,
- Assembly without fixed seats (table 1004.1.1) 1 person per 15 s.f net. The remainder is business occupancy.
- 1400 s.f. of assembly + 1000 s.f. of business = 2400 s.f.
- $1400 = 15(A)$  so  $A = 93$   $1000 = 100(B)$  so  $B=10$
- Total occupancy = 103 people



# Required Exits:

- 1200 s.f. space – B occupancy
  - 49 people – only one exit required (section 1015.1)
  - Luckily, most tenant spaces have two.
  - Panic Hardware not required.
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- 2400 s.f. space – A-3 occupancy
  - 103 people – two exits required
  - Luckily, most tenant spaces have two.
  - Panic Hardware is required.

# Sprinkler Requirements:

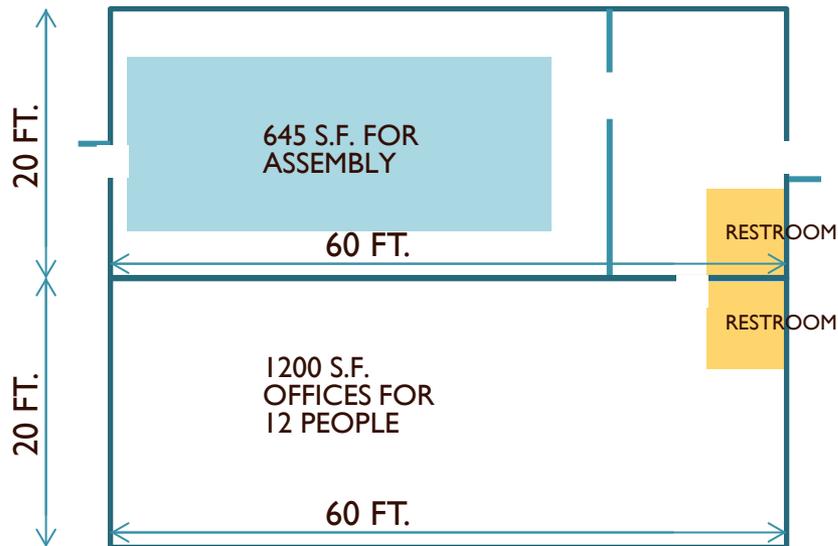
- More than 49 people = change of occupancy to A-3 – sprinklers required. If the space is much larger than 1200 s.f. it better be sprinklered, because it cannot be a B occupancy.
- If the space is sprinklered, can the change of occupancy be completed without a registered professional?
- Can sprinklers be added without an architect?

# Kitchenettes to serve food:

- Kitchen for serving food only
- Does a serving kitchen require a 3 compartment sink, hand sinks, garbage disposals and grease traps?
- Kitchens for preparing food require an automatic fire – extinguishing system per 904.11 and an exhaust fan.
- If a kitchen contains an existing 3 compartment sink, hand sink, cooking equipment and grease traps, can they prepare food to serve at no cost? (formerly a B occupancy)

# Plumbing:

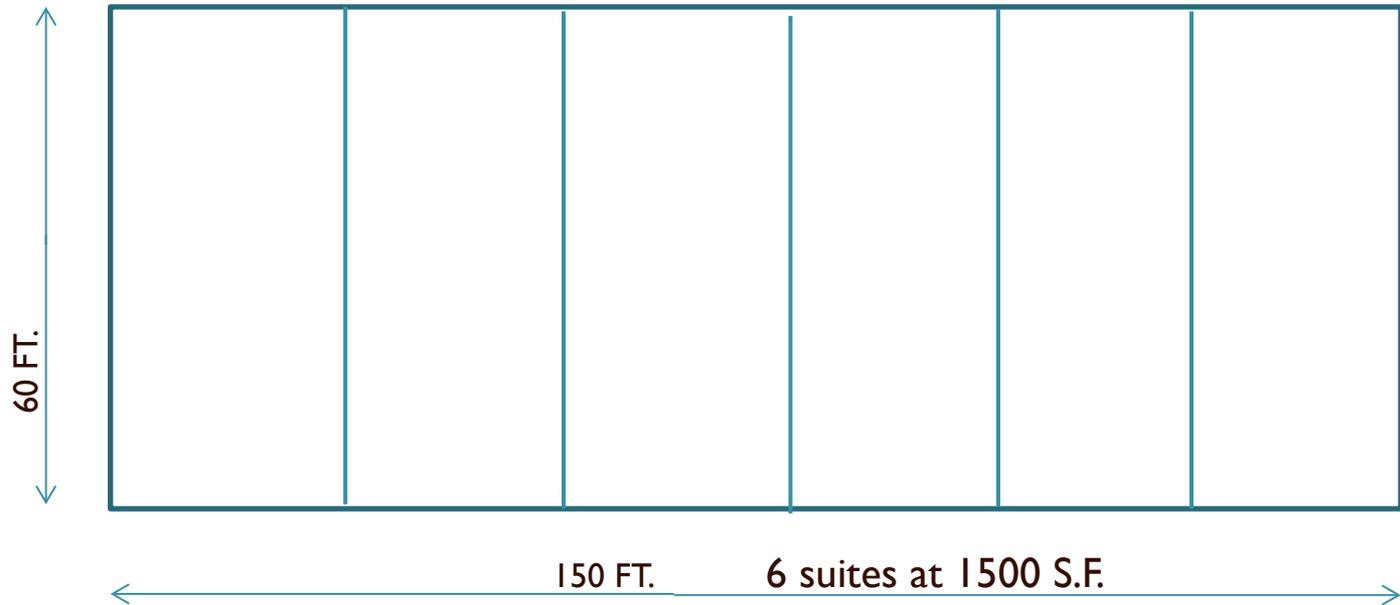
- Assembly occupancy requires separate restrooms.
- Business occupancies require separate restrooms with more than 15 people (20 in Mesa)



- Assembly occupancy requires drinking fountains. Business occupancies do not (Mesa amendment allows for water dispensers)
- If another restroom is needed, two suites can be combined for 61 people.

# Separation Requirements:

- Business and Mercantile use has a 9000 s.f. allowable for Vb (Table 503)
- If open on all sides, allowable area could be 15750 s.f.
- Unless it is a large shopping center or has a unseparated anchor store, allowable areas will not restrict the church use.



# Mechanical Ventilation:

- Assembly occupancies have a higher air-change requirement
- Does an engineer have to check these requirements? Can a mechanical contractor do this?

# Parking:

- Most parking lots have ample extra spaces or can be used with a swing shift schedule.
- 1 space per 75 s.f. for assembly
- 1 space per 275 s.f. for empty shell
- 1 space per 375 s.f. for Mercantile and Offices

# Summary of building systems affected:

- Occupancy calculations – should under 49 occupants be considered?
- Required exits – should 2 be required?
- Sprinkler requirements – mandatory?
- Kitchenettes - how to limit their use?
- Plumbing facilities – how important is this?
- Separation Requirements – do the other tenants need protection?
- Mechanical ventilation– how to enforce this?
- Parking
- Additional discussion