

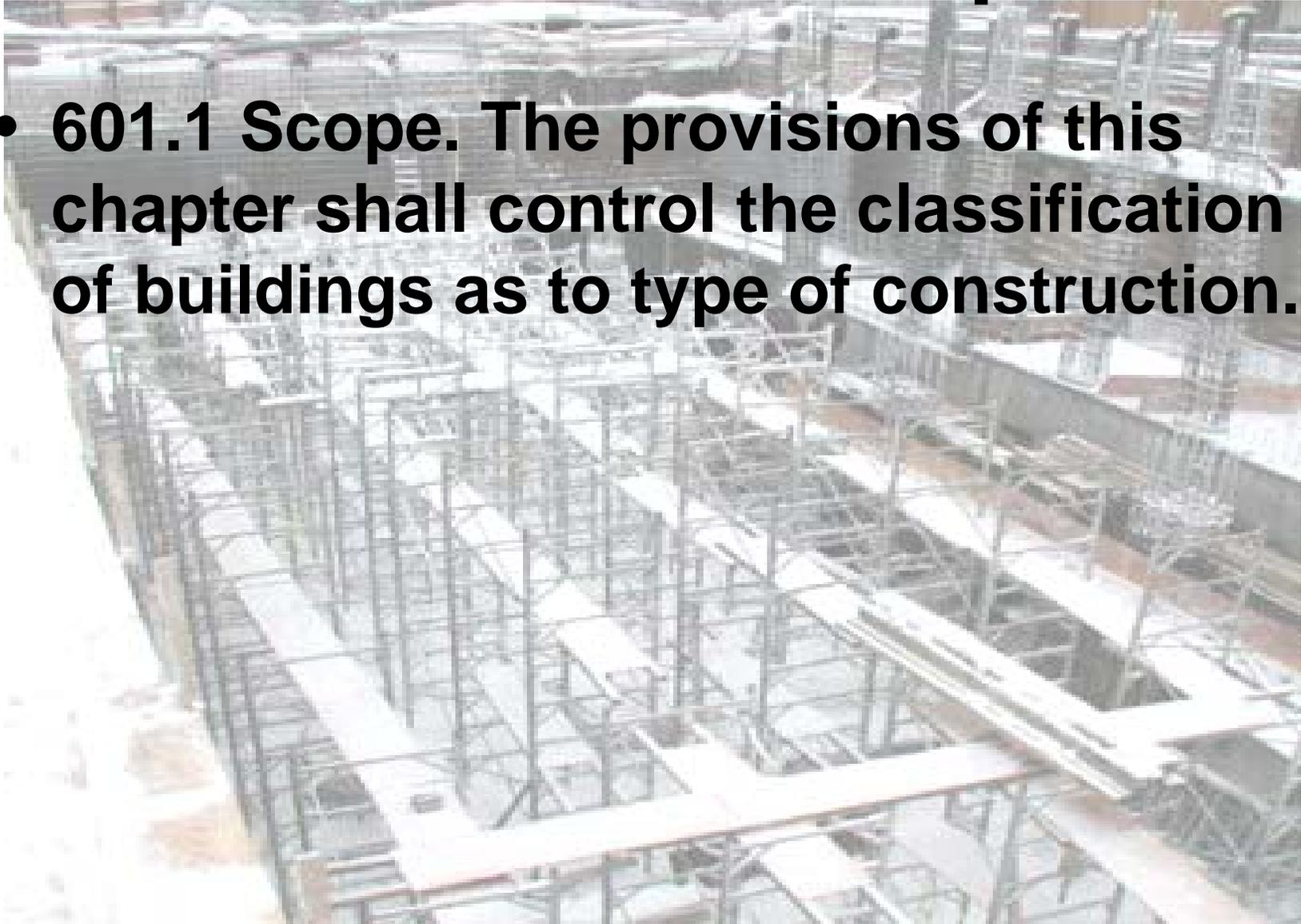
# IBC Chapter 6

- **Types of Construction**



# Section 601 Scope

- **601.1 Scope.** The provisions of this chapter shall control the classification of buildings as to type of construction.



# **Section 602.1 General**

- **Buildings erected, altered or extended in height or area shall be classified in one of the five construction types.**
- **The building elements shall have a fire-resistance rating not less than that specified in Table 601 and exterior walls shall have a fire-resistance rating not less than that specified in Table 602.**

# **Section 602.1.1 Minimum Requirements**

- **A building or portion thereof shall not be required to conform to the details of a type of construction higher than that type, which meets the minimum requirements based on occupancy even though certain features of such a building actually conform to a higher type of construction.**

# **Section 602.2 Types I and II**

- **Type I and II construction are those types of construction in which the building elements listed in Table 601 are of noncombustible materials, except as permitted in Section 603 and elsewhere in this code.**

# **Section 602.3 Type III**

- **Type III construction is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code.**
- **Fire-retardant –treated wood framing complying with section 2303.2 shall be permitted within exterior wall assemblies of a 2-hour rating or less.**

# Section 602.4 Type IV

- **Heavy Timber...**
- **Exterior Walls are of noncombustible construction**



# **Table 602.4**

- **Wood Member Size Table...**

# Section 602.4.1 Columns

- **Sawn or Glued Laminated...**
- **Not less than 8 inches nominal**



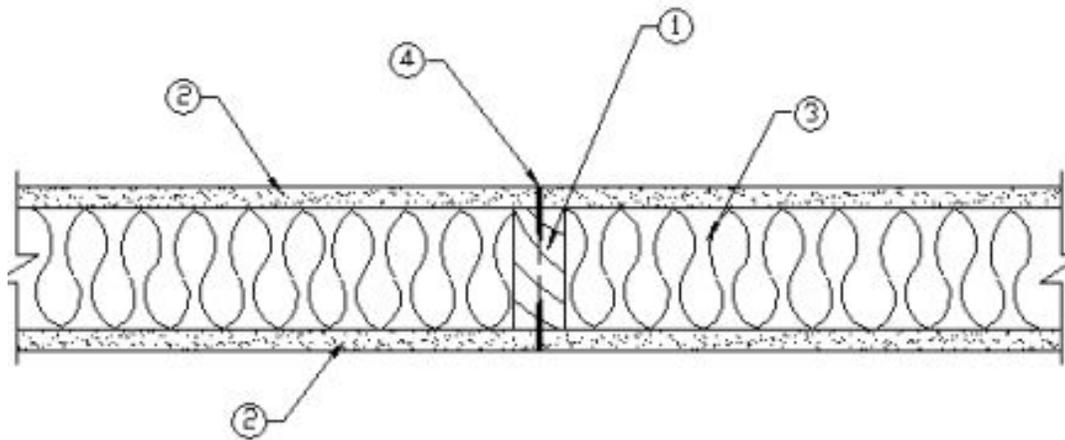
# Section 602.4.2 Floor Framing

- **Beams and girders sawn or glued-laminated...6 inch minimum nominal width, 10 inch minimum nominal depth.**
- **Section 602.4.3 Roof Framing**
- **Section 602.4.4 Floors**
- **Section 602.4.5 Roofs**



# Section 602.4.6 Partitions

- **Solid wood formed by not less than two layers of 1-inch matched boards ...or 1-hour fire-resistance-rated construction.**



# Section 602.4.7 Exterior Structural Members

- Horizontal separation of 20 feet or more...wood columns and arches conforming to heavy timber sizes permitted.



# Section 602.5 Type V

- **Materials as permitted by this code...**





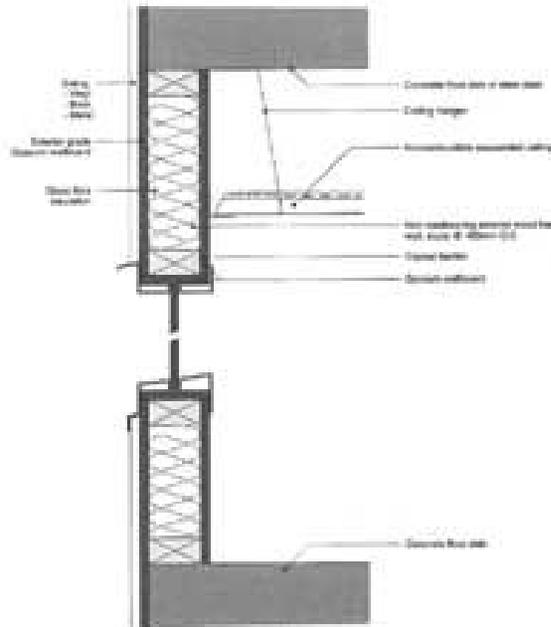
# Section 603

- **Combustible material in Type I and II Construction**



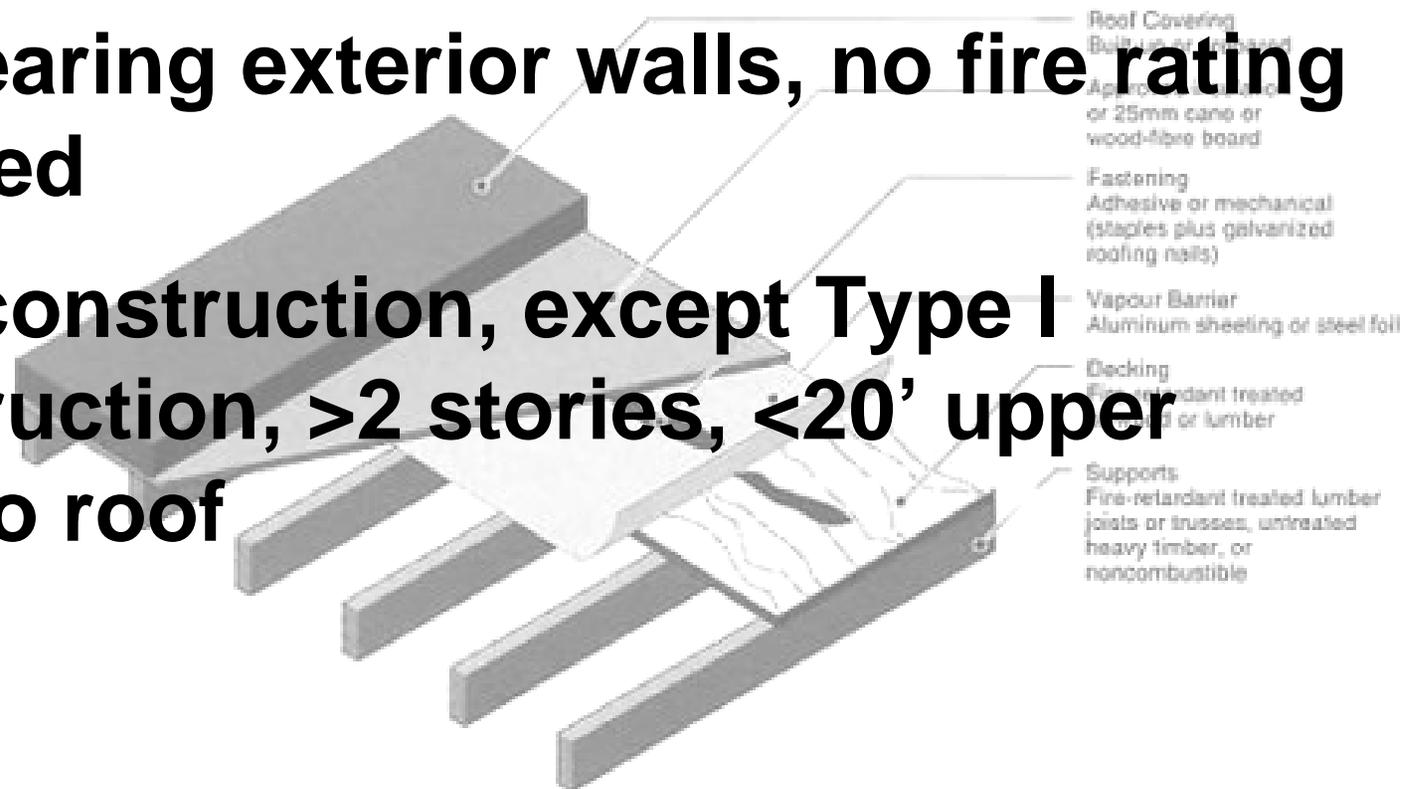
# Section 603.1 Allowable Materials

- Combustible materials shall be permitted in buildings of Type I or II construction in the following applications...



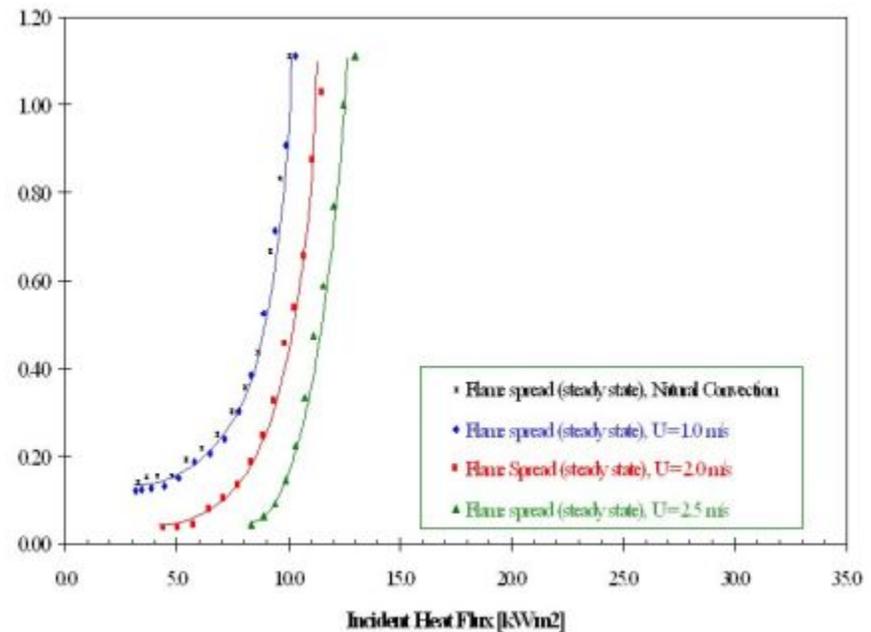
# Fire-retardant-treated wood

- Nonbearing partitions, req'd resistance of 2-hours or less
- Nonbearing exterior walls, no fire rating required
- Roof construction, except Type I construction, >2 stories, <20' upper floor to roof



# Thermal and acoustical insulation

- Other than foam, flame spread not more than 25



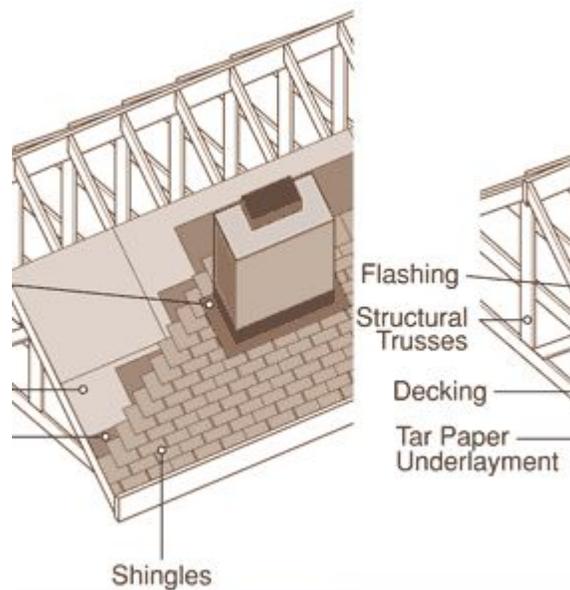
# Foam plastics.

- In accordance with Chapter 26



# Roof Covering

- **Class A, B or C, ref Chapter 15**



# Interior Finishes

- **Floor**
- **Finish**
- **Trim**
- **Millwork**

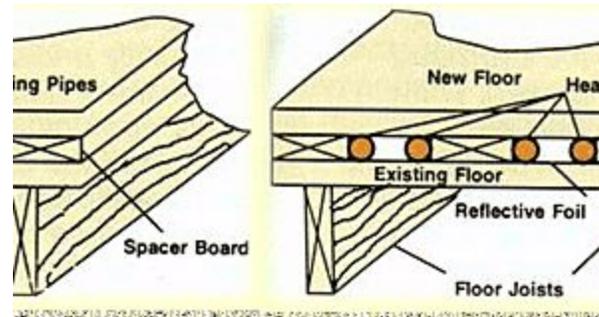


# **Show windows**

- **Not more than 15' above grade**
- **Nailing and furring strips**
- **Bulkheads**
- **Frames and Aprons**

# Finish Floor

- Applied directly to slab.
- Applied to wood sleepers, fireblocked, 717.2.7



# **Partitions dividing stores or offices**

- **One tenant**
- **Do not establish corridors serving 30 or more**
- **Fire-retardant-treated wood or**
- **1-hour fire-resistance-rated**
- **Up to 6 feet high**

# Stages and Platforms

- **Constructed in accordance with sections 410.3 and 410.4**



# Combustible Exterior Wall Coverings

- Including balconies, projections and bay windows
- Reference Chapter 14



# Blocking

- **Handrails**
- **Millwork**
- **Cabinets**
- **Windows and Doors**

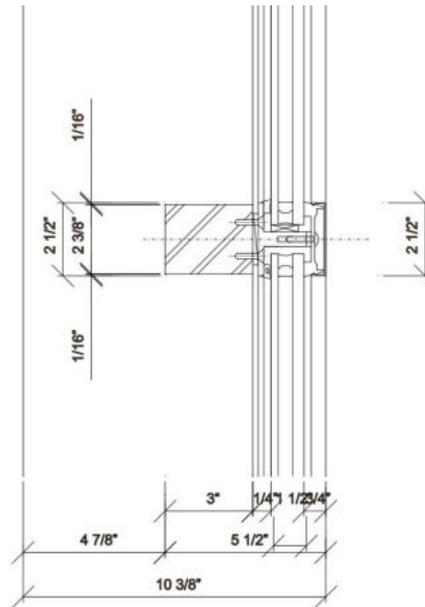
# Light-Transmitting Plastic

- Chapter 26



# Mastics and Caulking

- Flexible seals between components of exterior wall and construction.



# Exterior Plastic Veneer

- **Ref. section 2605.2 (spec, 50' height, 300 square foot)**

# Nailing or Furring Strips

- **Ref. section 803.4 (direct attachment or furred)**



# Heavy Timber

- **Section 602.4.7 (horizontal separation of 20' or greater)**



# Aggregates, component materials and admittures

- Ref. section 703.2.2 (tested assembly)



# Sprayed Fire-resistant materials

- Tested in accordance with 703.2



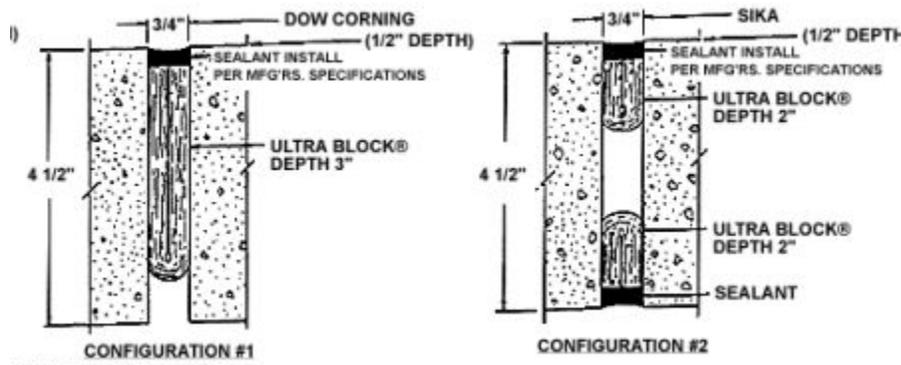
# Penetration Protection

- Ref. section 712 (vertical, horizontal, membrane or through)



# Joint Protection

- Ref. section 713 (Fire-Resistant Joint Systems)



# **Concealed Spaces – Construction Type I and II**

- **Ref. section 717.5 (Not permitted, except...)**

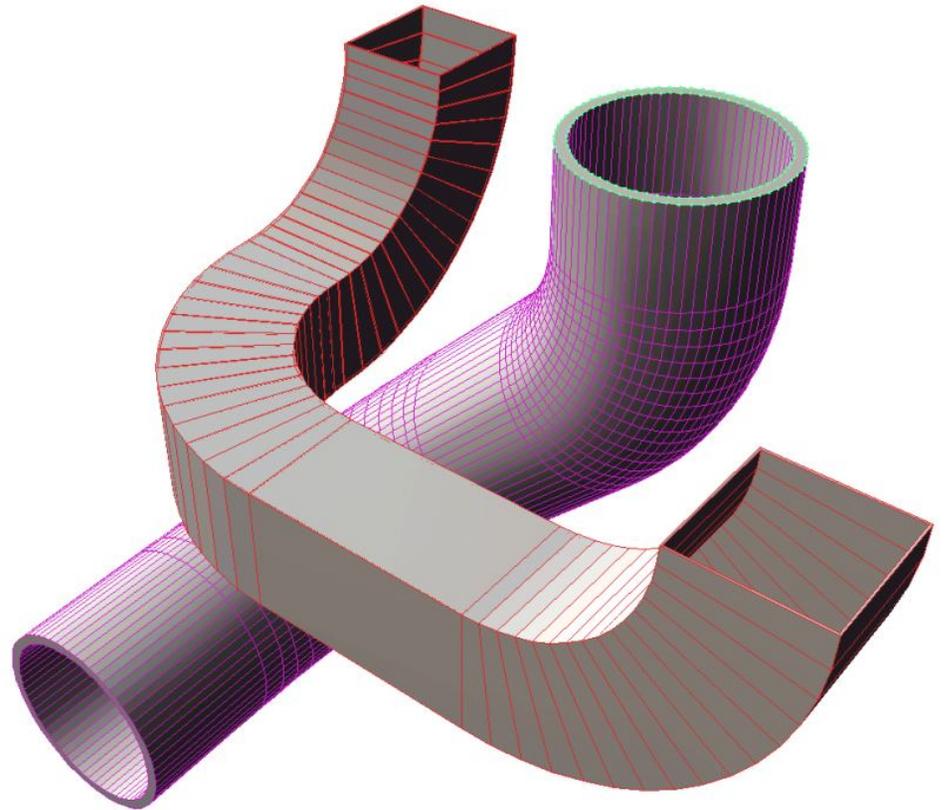
# Materials exposed within Plenums

- Section 602 of the IMC



# Section 603.1.1 Ducts

- **Non-metallic ducts permitted in accordance to limits of IMC**



# Section 603.1.2 Piping

- **Combustible piping material permitted in accordance with the limits of IMC**



# **Section 603.1.3 Electrical**

- **Electrical wiring methods with combustible insulation, tubing and related components in accordance with Comm 16.**

# Table 602

- Fire Separation Distance...

TABLE 602  
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE<sup>a</sup>

FIRE SEPARATION DISTANCE (feet)	TYPE OF CONSTRUCTION	GROUP H	GROUP F-1, M, S-1	GROUP A,B,E, F-2, I, R <sup>b</sup> , S-2, U
< 5 <sup>c</sup>	All	3	2	1
≥ 5 < 10	I-A Others	3 2	2 1	1 1
≥ 10 < 30	I-A, I-B II-B, V-B Others	2 1 1	1 0 1	1 0 1
≥ 30	All	0	0	0