



2.6. Construction Types

2.6.1. Designation of Fire Resistance Rating.

The system of designating types of construction includes a specific breakdown of the types of construction through the use of Arabic numbers. These Arabic numbers follow the roman numeral notation where identifying a type of construction [e.g., Type I(442), Type II(111), Type III(200)] and indicate the fire resistance rating requirements for certain structural elements as follows:

- a. First Arabic number — Exterior bearing walls
- b. Second Arabic number — columns, beams, girders, trusses and arches, supporting bearing walls, columns, or loads from more than one floor
- c. Third Arabic number — floor construction

2.6.2. Buildings and structures shall be classified according to their type of construction, which shall be based upon one of five basic types of construction designated as Type I, Type II, Type III, Type IV, and Type V.

2.6.3. Type I and Type II Construction.

Type I (442 or 332) and Type II (222, 111, or 000) construction shall be those types in which the fire walls, structural elements, walls, arches, floors, and roofs are of approved noncombustible or limited combustible materials.

2.6.4. Type III Construction.

The Type III construction shall be of following types.

- a. Approved fire retardant treated wood framing is allowed where exterior wall are of 2 hour fire rated having horizontal separation of not less than 1525 mm with outer and inner faces of walls of limited-combustible or noncombustible materials.
- b. Heavy Timber wood columns and arches are accepted when exterior walls are required to have 1 hour or less fire resistance.
- c. When exterior non-load bearing walls are tested to Large scale tests, such as NFPA 285, it shall be permitted as Type III construction.

Points to Ponder

Civil Defence has not considered Type III, Type IV and Type V Construction types for buildings in UAE Fire and Life Safety Code of Practice except for Villas, Kiosks, Washrooms and cafeterias having area less than 37 m². If any construction falls under these categories, a large scale test complying to ASTM E-119, NFPA 285, BS 8414, ISO 13785 or equivalent Civil Defence approved standards shall be done for such proposals to be accepted by Civil Defence. However, exemption of sprinklers is considered in lieu of allowing Type II (000) Constructions.