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AN ORDINANCE AMENDING THE ORLAND PARK VILLAGE CODE, TITLE 5, BUILDING, CHAPTER 1, BUILDING CODE, SECTION 13, ITEM 30 (AMENDMENTS TO BUILDING CODE REGARDING GARAGE FLOOR/CEILING FRAMING MATERIALS)

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WHEREAS, the Village of Orland Park is authorized by law to adopt codes by reference pursuant to Illinois Municipal Code, 65 ILCS 5/1-3-2; and

WHEREAS, from time to time the Village determines that further changes are necessary to the text of the Village's adopted Building Code, said changes relating to garage floor/ceiling framing materials; and

WHEREAS, the Village has determined that the amendments set out below are in the best interests of the Village and its residents and will enhance the public safety and welfare.

NOW, THEREFORE, Be It Ordained by the President and Board of Trustees of the Village of Orland Park, Cook and Will Counties, Illinois, as follows:

SECTION 1: Title 5, Building, Chapter 1, Building Code, Section 5-1-13 of the Village Code of the Village of Orland Park is hereby amended to delete to delete in its entirety the text of item 30 and to substitute the following as new text for item 30 of Section 5-1-13:

30. That Section 501.3 is added to Section 501.0 and shall read as follows:

#### 501.3 WALLS, VENEERS AND FLOORS

501.3.1 SINGLE FAMILY EXTERIOR VENEERS: All single family attached and detached residences shall contain a face brick or stone anchored veneer, with a minimum 2.625" thickness on a minimum of 90% of their first floor and walk out area/ground level elevations. Any other material exceeding the 10% for the remaining ground level wall surfaces shall be approved by the code official.

501.3.2 EXTERIOR WALLS ALL OTHER USES: All exterior walls shall be of non-combustible construction using solid masonry, or steel column and beam construction using metal studs with a veneer of decorative masonry, decorative architectural concrete panels or similar materials. The same material shall be used for all of the exterior walls of a building. See Section 503.2.1 items #7 for wood framing & item #8 for metal wall studs. (Ord. 4499 - 8-3-09). The minimum concrete or masonry veneer is 2.625" in depth for anchored veneer applications as noted in Table 1405.2 as amended.

#### EXCEPTIONS:

A. Use Group R-1 (Hotels, Motels) buildings equipped throughout with an automatic fire sprinkler system per 903.3.1.1, may use a structurally engineered noncombustible exterior wall

system when special inspections are performed by a State of Illinois Licensed Architect or Structural Engineer per Sections 104.4, 1704.1, 1704.2 and 1704.3 of this code.

B. Buildings of masonry and anchored veneer construction more than 3-stories in height may use an exterior wall finish/veneer of other exterior permitted materials for its top (uppermost) story only, with the following conditions:

1. The finish material shall be of an approved durable product.
2. The highest/upper story when of metal stud wall construction and not using a masonry veneer, must be designed of a 1-hour fire rated minimum assembly using cement board on the exterior side of stud walls, however not less than the hourly rating required in table 601 for exterior walls or fire separation based on distance.

C. Agricultural Canopies as allowed in Section 312.1 for an Agricultural Use and are not classified as a Tent may use a roll up type side wall material. Pliable material may only be lowered for protecting plant material during frost conditions when the canopy is not open to the public or occupied. Permanent Canopy construction and materials shall also comply with the Village Fire Code (VC 5-5).

Construction and maintenance approval of permanent canopies using fabric or pliable materials shall comply with all of the following conditions:

1. Special inspection reports must be submitted to the Village by a qualified inspection agency, a State of Illinois licensed architect or engineer or the manufacturer's representative stating the canopy was installed per installation requirements.
2. Special Inspection reports shall review the canopy for:
  - a. Structural integrity conformance to the design engineer's plan and Building Code.
  - b. Design materials used in compliance to the Building and Fire Codes.
  - c. All matters regulated by the Fire Code for a permanent canopy.
  - d. Citations will be issued to the land owner and a court appearance is required for violations of this ordinance without preliminary warnings.

See Sections 202, 312, 907.2 and Chapter 35 Appendix C of this ordinance for additional Code references

D. 1-story Business (B) Use Group occupancies with less than 5000 total square feet of floor area, allow a 1-hour Type V-A Construction Type with a decorative masonry veneer. Lot line setbacks and multiple buildings located on the same lot must conform with Fire Limits exception in section 503.2.1 GENERAL.

501.3.3 FLOORS FOR USE GROUPS R-1 AND R-2: Floors in Use Groups R-1 and R-2 shall be precast or engineered reinforced concrete where separating tenant spaces. See Section 711.3.

EXCEPTIONS:

1. Floors of an R-1 Use Group building may use an engineered combustible floor framing system to separate tenant spaces. A minimum fire separation shall not be less than a one (1)-Hour fire resistance rated assembly when buildings are designed having a minimum Type of Construction per Section 503.5 of this code and are fully fire suppressed per Section 903.2.8. (Ord. 4056, 7-19-05).

See Section 310.3.2 for required special inspections. Approved fire rated opening assemblies shall be limited to a maximum membrane penetration as allowed in Section 714.4.2 for the floor ceiling assembly area. A minimum Sound Transmission Classification shall be as indicated in Section 1207.2 and 1207.3 of this code. (Ord. 3994, 3/7/05).

2. Floors of an R-2 use group may use a non-combustible floor joist (metal bar joist) with a non-penetrated 2-hour fire resistive separation rating (see d. below) under the following conditions:

A. When the residential floor is not located above a garage floor or other more hazardous use.

Exception: A non-combustible (metal bar joist) design assembly may be used above garages in multi-family residential, R-2 Use Group buildings with the following conditions:

1. The building is 100% fire sprinkler protected per NFPA 13 Standard.

2. The garage spaces are sized for a single non-commercial type vehicle which may include the additional dimensions needed to comply with the Illinois Accessibility Code, (Section 400.310, c) 3) & Figures 9 & 10). The spaces may have other minor adjustments to comply with specific code regulations where necessary and not excessive as determined by the Building Official.

Each of the vehicle/car spaces are separated from adjacent spaces, rooms or corridors by using the materials required for an approved 2-hour fire rated, tested assembly. The added increased material needed from a 1-hour fire rated assembly to the 2-hour fire rated/tested assembly are only required to be added on the interior surfaces of the walls and floor/ceiling inside the garage space surfaces only. An architectural design shall be submitted for this option's approval.

3. Penetrations and openings of the walls, ceiling and floor assemblies not permitted except for:

a. The access doors into the garages.

b. Small non-combustible material penetrations are permitted for fire sprinkler piping, small electrical box equipment used for light switches and receptacles when wrapped with an approved tested fire protective penetration material(s).

c. Any permitted penetrations and wall/ceiling finishes must be sealed for possible transmission of fumes and spread of fire to adjacent tenants.

Item #2D below, allowing the reduction to a 1-hour fire resistive separation assembly, does not apply when a solid concrete floor/ceiling assembly is not used this Item's 2A Exception of a solid concrete floor assembly.

4. Sound ratings shall be explicitly maintained between garages and residential units. Adequate sound insulation design details shall be submitted with permit plans.
  5. Mechanical exhaust shall be provided for each space per the adopted Mechanical Code as listed in Village Code Title 5, Chapter 6. (100 cfm per car exhausted to the exterior air)
- B. When the building floor area does not exceed the height and area limitations for a non-fire sprinkler protected building (see 903.1.2 & 903.2.8).
- C. When a drop ceiling is installed below the fire rated floor/ceiling assembly for the installation of plumbing, electrical and mechanical equipment to rooms.
- D. In buildings fully fire sprinkler protected per NFPA 13, the fire rated floor assembly may be reduced to a 1-hour rated assembly (similar to the interior wall fire rating reduction). See the 2-hour fire rating of this Section's 2A Exception, Item #3 above which applied if used.

501.3.4 INTERIOR WALLS: Interior walls totally separating dwelling units in Use Group R-1 & R-2 shall be solid masonry.

**EXCEPTION:**

- a. Buildings with an approved automatic fire sprinkler system throughout may use a metal stud 3-wall system with a tested/listed 2-hour fire rating. (See Section 310.3 for intent).
- b. R-1 HOTELS AND MOTELS: Hotel, Motel rooms and corridors of an R-1 Use Group building may be separated with a single non-combustible wall system having a one (1) hour fire resistance rating when the building has a minimum Construction of Type II-B or III-B (602.2 and 602.3) and is fully fire sprinkler protected per 903.2.8 (see Section 310.3.1). See Section 310.3.1 for required special inspections.

Fire barrier wall partitions shall continue from a fire rated floor assembly below to a fire rated floor ceiling assembly above or to the roof deck above. Fire retardant sheathing shall be installed as described in Section 310.3. Wall penetrations shall be as specified in Section 714.3.1.1.1. The wall assembly shall be insulated to provide an STC rating per Sections 1207.2 and 1207.3. See Section 310.3.1 for required special inspections.

In multi-story buildings, plumbing drain, waste and vent piping shall not be located within tenant wall fire separation assemblies. Plumbing drain, waste and vent piping shall be located in separate fire rated shafts of a two (2) hour fire rated assemblies per Section 707.

- c. R-2 MULTI-FAMILY: Multi-family R-2 use groups may reduce the 2-hour fire rated 3-wall assembly to a 1-hour tested fire rating with no penetrations if the building is fully fire

sprinkler protected in accordance with Section 903 and when a minimum STC sound ratings are provided in accordance with Sections 1207 and 708.3. (See Table 601 footnote h. for additional notes)

When the building is 100% fully fire sprinkler protected per Section 903.3.1.1, penetrations are allowed and shall be limited to fire sprinkler and non-combustible piping only. Other fire resistive wall openings shall be no larger than 16 square inches and adequately spaced with an approved penetration firestop systems per Section 714.3.1.2. All openings shall be effectively sealed to limit the movement of air and sound to adjoining tenants. Sound ratings shall be designed and maintained per Sections 708.3, 1207.2 and item #5 below. When a building is fully fire sprinkler protected, the tenant wall may be constructed of a 2- stud wall system having a minimum 1 inch air space between walls. An approved fire rated assembly is allowed with the following conditions:

1. The fire rated tenant walls shall be continuous from the foundation to the roof or to fire rated floor/ceiling assemblies of an equal fire rating to that of the common tenant wall(s).
2. Each framing member of the double stud-wall system shall be of at least 2 x 4 stud framing members with minimum nominal thickness of 3-1/2". Vertical piping placed within this tenant wall assembly shall not consume more than 50% of the wall cavity's thickness or depth ( $3.5 + 3.5 + 1 = 8''$  min.). If equipment and pipes are larger than 4", a larger stud cavity must be used.
3. Fire rated wall penetrations between tenants shall be restricted to small non-combustible electrical and plumbing pipe openings no larger than 4 inches. Electrical outlet boxes and plumbing pipe shall be adequately sleeved, insulated and caulked for sound control with a design as approved by the building code official.
4. Kitchen sinks, disposals, dishwashers and similar sound producing equipment shall not be designed adjacent to this type of common 2-wall system.
5. When a 2-wall system is used, the minimum sound rating shall be increased to a 55 STC rating from that referenced in amended Section 1207 (also see amended section 711.3 regarding floors). Wall penetrations must be sound insulated and offset at least 24 inches from adjacent residential tenant units as noted in Section 714.3.2 exceptions.
6. In addition to the sound rating noted above, a 2" mineral fiber sound reduction insulation, shall be added between walls at and around allowed equipment penetrations, adequately insulated and sealed between adjoining tenant walls.
7. Fire and sound ratings and penetrations shall be part of the architectural plan design.
8. Common tenant walls shall be fire-stopped at each floor level so as not to create a continuous shaft between floors.

## SECTION 2

All other parts of Title 5, Building, Chapter 1, Building Code, of the Village Code of the Village of Orland Park not specifically amended by this Ordinance shall remain in full force and effect unless and until they are amended by another ordinance.

## SECTION 3

This Ordinance shall be in full force and effect from and after its passage, approval and publication as required by law.