

ORDINANCE NO. _____

An ordinance amending Chapter 53, “Dallas Building Code,” of the Dallas City Code by amending Sections 202, [F] 403.3.2, 406.5.2, 504.3, 504.4, 506.2.1, 506.2.3, 506.2.4, 507.3, 507.14, 508.4.4.1, 511.1.2, 602.1, 602.4, 718.2.1, 803.3, 803.13.3, [F] 903.2.8, 903.2.13, 1007.1.1, [BG] 1510.2.5, 1705.1.1, 2304.11; 2306.4, [P] 2902.1, 3103.1.2, 3109, 3313, 4005.2, 4005.3, and 4201.1; amending Tables 602, 903.2.13; providing definitions, water supply to required fire pump requirements, requirements for screens on openings of motor-vehicle-related occupancies, updated cross references, sprinkler requirements for certain one-story buildings, area requirements, mass timber and heavy timber construction requirements, limitations on the fire areas of nonsprinklered buildings, fire-resistance rating requirements for exterior walls based on fire separation distance, an exception to the automatic sprinkler requirement for Group R-4 care facilities with five or fewer persons that are within a single-family dwelling, an exception to the fire wall requirement for membrane structures when authorized by the building official, nonsprinklered building fire area limits for Type IV construction, exit access doorway requirements, special inspection requirements, water closet and drinking fountain requirements, requiring permits for temporary structures, water safety for fire protection requirements, amended APA and ASTM standards, amended requirements for when the building official is required to call a meeting of the demolition review committee and amended unity agreement requirements; adding a new Table 503, “Type IV A, B, & C Construction Allowable Heights, Stories and Areas”; providing a new Section 509.4.1.1, “Type IV B and IV C Construction”; providing a new Table 301.1, “Fire-Resistance Rating Requirements for Building Elements (Hours)”; providing a new Section 703.8, “Determination of Noncombustible Protection Time Contribution”; providing a new Section 703.9, “Sealing of Adjacent Mass Timber Elements”; adding a new Section 722.7, “Fire-Resistance Rating of Mass Timber”; adding a new Section 1007.1.2.1, “Interlocking Stairs When Allowed As Separate Exits

With Three or More Exits or Exit Access Doorways”; adding a new Section 1604.11, “Seismic Systems of Types IV A, B, C and HT”; adding a new Section 1705.5.3, “Mass Timber Construction”; adding a new Table 1705.5.5.3, “Required Special Inspections of Mass Timber Construction”; adding a new Section 1705.19, “Sealing of Mass Timber”; adding a new Section 2303.1.14, “Structural Glued Cross-Laminated Timber”; adding a new Section 2304.10.8, “Connection Fire-Resistance Rating”; adding a new Table 2304.11, “Minimum Dimensions of Heavy Timber Structural Members”; adding a new Section 3314, “Fire Watch During Construction”; adding a new Section 3315, “Noncombustible Construction for Exposure Protection”; adding a new Section 3316, “Fire-Resistance-Rated Construction Inventory”; providing a penalty not to exceed \$2,000; providing a saving clause; providing a severability clause; and providing an effective date.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

SECTION 1. That Section 202, “Definitions,” of Subchapter 2, “Definitions,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by alphabetically adding, amending, or deleting the following definitions to read as follows:

“BUILDING SITE. A site created in one of the ways as required by Section 51A-4.601 of the *Dallas Development Code*.

EXISTING BUILDING. An existing building as defined in the *Dallas Existing Building Code* and buildings previously occupied as described in Section 101.4 of the *Dallas Existing Building Code*.

EXISTING STRUCTURE. ~~An existing structure as defined in the *Dallas Existing Building Code* [A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued. For application of provisions in flood hazard areas, an existing structure is any building or structure for which the start of construction commenced before the effective date of the community’s first flood plain management code, ordinance or standard].~~

FIRE AREA, NONSPRINKLERED BUILDING. The aggregate floor area of all stories enclosed and bounded by fire walls or exterior walls of a building excluding area increases for the automatic fire sprinkler system. Areas of the building not provided with surrounding walls must be included in the fire area if such areas are included within the horizontal projecting of the roof or floor next above.

~~[KEYED DEAD BOLT. A door lock that is not in the doorknob, that locks by a bolt in the doorjamb, that has a bolt with at least a 1 inch throw if installed after September 1, 1993, and that is operated from the exterior by a key, card or combination. The term includes a doorknob lock that contains a bolt with at least a 1 inch throw.~~

~~KEYLESS DEAD BOLT. A door lock not in the doorknob that locks:~~

- ~~1. with a bolt with a 1 inch throw into a strike plate screwed into the portion of the doorjamb surface that faces the edge of the door when the door is closed or into a metal doorjamb that serves as the strike plate, operable only by knob or lever from the door's interior and not in any manner from the door's exterior, and that is commonly known as a keyless dead bolt;~~
- ~~2. by a drop system operated by placing a central metal plate over a metal doorjamb restraint which protrudes from the doorjamb and which is affixed to the doorjamb frame by means of three case-hardened screws at least 3 inches in length. One half of the central plate must overlap the interior surface of the door and the other half of the central plate must overlap the doorjamb when the plate is placed over the doorjamb restraint. The drop bolt system must prevent the door from being opened unless the central plate is lifted off the doorjamb restraint by a person who is on the interior side of the door; or~~
- ~~3. by a metal bar or metal tube that is placed across the entire interior side of the door and secured in place at each end of the bar or tube by heavy duty metal screw hooks. The screw hooks must be at least 3 inches in length and must be screwed into the door frame stud or wall stud on each side of the door. The bar or tube must be capable of being secured to both of the screw hooks and must be permanently attached in some way to the door frame stud or wall stud. When secured to the screw hooks, the bar or tube must prevent the door from being opened unless the bar or tube is removed by a person who is on the interior side of the door. The term does not include a chain latch, flip latch, surface-mounted slide bolt, motise door bolt, surface-mounted barrel bolt, surface-mounted swing bar door guard, spring loaded night latch, foot bolt or other lock or latch.]~~

[BG] MASS TIMBER. Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross-section dimensions of Type IV construction.

NONCOMBUSTIBLE PROTECTION (FOR MASS TIMBER). Noncombustible material, in accordance with Section 703.5, designed to increase the *fire-resistance rating* and delay the combustion of *mass timber*.

~~[POOL. Any man made permanently installed or non-portable structure, basin, chamber or tank containing an artificial body of water that is used for swimming, diving, aquatic sports or other aquatic activity other than a *residential pool* and that is operated by an owner, lessee, operator, licensee or concessionaire, regardless of whether a fee is charged for use. The pool may be either publicly or privately owned. The term does not include a spa or a decorative fountain that is not used as a pool or pools with depths of 18 inches or less. References within the standard to various types of pools are defined by the following categories:~~

- ~~1. Class A pool—Any pool used with or without a fee, for accredited competitive aquatic events such as Federation Internationale De Natation Amateur (FINA), United States Swimming, United States Diving, National Collegiate Athletic Association (NCAA) or National Federation of State High School Associations (NFSHSA) events. A class A pool may also be used for recreation.~~
- ~~2. Class B pool—Any pool used for public recreation and open to the general public with or without a fee.~~
- ~~3. Class C pool—Any pool operated for and in conjunction with:~~
 - ~~1.1.—Lodging such as hotels, motels, apartments, condominiums or mobile home parks;~~
 - ~~1.2.—Property owners’ associations, private organizations or clubs; or~~
 - ~~1.3.—A school, college or university while being operated for academic or continuing education classes.~~

~~The use of such a pool would be open to occupants, members or students and their guests, but not open to the general public.~~

- ~~2. Class D pool—A wading pool with a maximum water depth of 24 inches at any point.~~

~~**POOL YARD OR SPA YARD.** An area that has a *pool or spa yard enclosure* and that contains a *pool or spa*.~~

~~**POOL YARD OR SPA YARD ENCLOSURE.** A fence, wall or combination of fences, *walls*, gates, windows or doors that completely surround a pool or spa.~~

~~**POOLS, STATE LAW.** Refers to *25 Texas Administrative Code*, Chapter 265, Subchapter L, “Standards for Swimming Pools and Spas,” which went into effect on September 1, 2004 (except Section 265.190, “Suction Outlets and Return Inlets at Post-10/01/99 and Pre-10/01/99 Pools and Spas,” which had an effective date of January 1, 2005).~~

~~**PREMISES.** A lot or unplatted tract of land that is reflected in the plat books of the building inspection division of the city. Refer to Section 51-4.601 or Section 51A-4.601 of the *Dallas Development Code*.~~

~~PUBLIC POOL OR SPA.~~ See the definition of Pool.

~~RESIDENTIAL POOL OR SPA.~~ A *pool* or *spa* that is located on private property under the control of the property owner or the owner's tenant and that is intended for use by not more than two resident families or their guests. It includes a *pool* or *spa* serving only a single family home or a duplex.

~~SPA.~~ A constructed permanent or portable structure that is 2 feet or more in depth and that has a surface area of 250 square feet or less or a volume of 3,250 gallons or less and that is intended to be used for bathing or other recreational uses and is not drained and refilled after each use. It may include, but is not limited to, hydrojet circulation, hot water, cold water, mineral baths, air induction bubbles or any combination thereof. A spa as referred to in this code is not a business establishment such as a day spa or health spa. Industry terminology for a spa includes, but is not limited to, "hydrotherapy pool," "whirlpool," "hot spa," "hot tub," etc. A spa does not include a residential spa.]

[BS] WALL, LOAD-BEARING. Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
2. Any *masonry*, [or] concrete or mass timber wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight."

SECTION 2. That Paragraph [F] 403.3.2, "Water Supply to Required Fire Pumps," of Subsection [F] 403.3, "Automatic Sprinkler System," of Section 403, "High-Rise Buildings," of Subchapter 4, "Special Detailed Requirements Based on Use and Occupancy," of Chapter 53, "Dallas Building Code," of the Dallas City Code is amended to read as follows:

"[F] 403.3.2 Water supply to required fire pumps. In all buildings that are more than 420 feet (128 m) in *building height*, and buildings of Type IV A and IV B construction that are more than 120 feet (36.5 m) in *building height*, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without the interruption through no fewer than one of the connections."

SECTION 3. That Paragraph 406.5.2, “Openings,” of Subsection 406.5, “Open Parking Garages,” of Section 406, “Motor-Vehicle-Related Occupancies,” of Subchapter 4, “Special Detailed Requirements Based on Use and Occupancy,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“406.5.2 Openings. For natural *ventilation* purposes, the exterior side of the structure shall have uniformly distributed openings on two or more sides. The area of such openings in *exterior walls* on a tier shall not be less than 20 percent of the total perimeter wall area of each tier. The aggregate length of the openings considered to be providing natural *ventilation* shall not be less than 40 percent of the perimeter of the tier. Interior walls shall not be less than 20 percent open with uniformly distributed openings. Use of screens are permissible if calculations are provided that demonstrate no loss in minimum area of openings.

Exception: Openings are not to be distributed over 40 percent of the building perimeter where the required openings are uniformly distributed over two opposing sides of the building.

406.5.2.1 Openings below grade. Where openings below grade provide required natural *ventilation*, the outside horizontal clear space shall be one and one-half times the depth of the opening. The width of the horizontal clear space shall be maintained from grade down to the bottom of the lowest required opening.”

SECTION 4. That Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Table 503, “Type IV A, B & C Construction Allowable Heights, Stories and Areas,” to read as follows:

**“TABLE 503
TYPE IV A, B & C CONSTRUCTION ALLOWABLE HEIGHTS, STORIES AND
AREAS^{a,b,c}**

OCCUPANCY CLASSIFICATION	TYPE IV					
	A		B		C	
A-1	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	3 stories	NS	3 stories	NS	3 stories	NS
	9 stories	S	6 stories	S	4 stories	S
	45,000 sq. ft.	NS	30,000 sq. ft.	NS	18,750 sq. ft.	NS
	180,000 sq. ft.	S	120,000 sq. ft.	S	75,000 sq. ft.	S
	135,000 sq. ft.	SM	90,000 sq. ft.	SM	56,250 sq. ft.	SM
A-2	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	3 stories	NS	3 stories	NS	3 stories	NS
	18 stories	S	12 stories	S	6 stories	S
	45,000 sq. ft.	NS	30,000 sq. ft.	NS	18,750 sq. ft.	NS
	180,000 sq. ft.	S	120,000 sq. ft.	S	75,000 sq. ft.	S
	135,000 sq. ft.	SM	90,000 sq. ft.	SM	56,250 sq. ft.	SM

OCCUPANCY CLASSIFICATION	TYPE IV					
	A		B		C	
A-3	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	3 stories	NS	3 stories	NS	3 stories	NS
	18 stories	S	12 stories	S	6 stories	S
	45,000 sq. ft.	NS	30,000 sq. ft.	NS	18,750 sq. ft.	NS
	180,000 sq. ft.	S	120,000 sq. ft.	S	75,000 sq. ft.	S
	135,000 sq. ft.	SM	90,000 sq. ft.	SM	56,250 sq. ft.	SM
A-4	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	3 stories	NS	3 stories	NS	3 stories	NS
	18 stories	S	12 stories	S	6 stories	S
	45,000 sq. ft.	NS	30,000 sq. ft.	NS	18,750 sq. ft.	NS
	180,000 sq. ft.	S	120,000 sq. ft.	S	75,000 sq. ft.	S
	135,000 sq. ft.	SM	90,000 sq. ft.	SM	56,250 sq. ft.	SM
A-5	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	1 story	NS	1 story	NS	1 story	NS
	UL stories	S	UL stories	S	UL stories	S
	UL Area sq. ft.		UL Area sq. ft.		UL Area sq. ft.	
B	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	5 stories	NS	5 stories	NS	5 stories	NS
	18 stories	S	12 stories	S	9 stories	S
	108,000 sq. ft.	NS	72,000 sq. ft.	NS	45,000 sq. ft.	NS
	432,000 sq. ft.	S	288,000 sq. ft.	S	180,000 sq. ft.	S
	324,000 sq. ft.	SM	216,000 sq. ft.	SM	135,000 sq. ft.	SM
E	65'	NS	65'	NS	65'	NS
	270'	S	120'	S	85'	S
	3 stories	NS	3 stories	NS	3 stories	NS
	9 stories	S	6 stories	S	4 stories	S
	76,500 sq. ft.	NS	51,000 sq. ft.	NS	31,875 sq. ft.	NS
	306,000 sq. ft.	S	204,000 sq. ft.	S	127,500 sq. ft.	S
	229,500 sq. ft.	SM	153,000 sq. ft.	SM	95,625 sq. ft.	SM
F-1	65'	NS	65'	NS	65'	NS
	270'	S	120'	S	85'	S
	3 stories	NS	3 stories	NS	3 stories	NS
	10 stories	S	7 stories	S	5 stories	S
	100,500 sq. ft.	NS	67,000 sq. ft.	NS	41,875 sq. ft.	NS
	402,000 sq. ft.	S	268,000 sq. ft.	S	167,500 sq. ft.	S
	301,500 sq. ft.	SM	201,000 sq. ft.	SM	125,625 sq. ft.	SM
F-2	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	5 stories	NS	5 stories	NS	5 stories	NS
	12 stories	S	8 stories	S	6 stories	S
	151,000 sq. ft.	NS	101,000 sq. ft.	NS	63,125 sq. ft.	NS
	606,000 sq. ft.	S	404,000 sq. ft.	S	252,500 sq. ft.	S
	454,500 sq. ft.	SM	303,000 sq. ft.	SM	189,375 sq. ft.	SM
H-1	120'	S	90'	S	65'	S
	1 story	S	1 story	S	1 story	S
	10,500 sq. ft.	S	10,500 sq. ft.	S	10,500 sq. ft.	S
H-2	120'	S	90'	S	65'	S
	2 stories	S	2 stories	S	2 stories	S
	10,500 sq. ft.	S	10,500 sq. ft.	S	10,500 sq. ft.	S
H-3	120'	S	90'	S	65'	S
	4 stories	S	4 stories	S	4 stories	S
	25,500 sq. ft.	S	25,500 sq. ft.	S	25,500 sq. ft.	S
H-4	140'	S	100'	S	85'	S
	8 stories	S	7 stories	S	6 stories	S
	288,000 sq. ft.	S	216,000 sq. ft.	S	162,000 sq. ft.	S
	216,000 sq. ft.	SM	162,000 sq. ft.	SM	121,500 sq. ft.	SM

H-5	120' S 3 stories S 288,000 sq. ft. S 216,000 sq. ft. SM	90' S 3 stories S 216,000 sq. ft. S 162,000 sq. ft. SM	65' S 3 stories S 162,000 sq. ft. S 121,500 sq. ft. SM
OCCUPANCY CLASSIFICATION	TYPE IV		
	A	B	C
I-1 Condition 1	65' (13R) 180' S 4 stories (13R) 10 stories S 54,000 sq. ft. (13R) 216,000 sq. ft. S 162,000 sq. ft. SM	65' (13R) 120' S 4 stories (13R) 7 stories S 36,000 sq. ft. (13R) 144,000 sq. ft. S 108,000 sq. ft. SM	65' (13R) 85' S 4 stories (13R) 5 stories S 18,000 sq. ft. (13R) 72,000 sq. ft. S 54,000 sq. ft. SM
I-1 Condition 2	65' S 10 stories S 216,000 sq. ft. S 162,000 sq. ft. SM	65' S 6 stories S 144,000 sq. ft. S 108,000 sq. ft. SM	65' S 4 stories S 72,000 sq. ft. S 54,000 sq. ft. SM
I-2	65' S 7 stories S 144,000 sq. ft. S 108,000 sq. ft. SM	65' S 5 stories S 96,000 sq. ft. S 72,000 sq. ft. SM	65' S 1 story S 48,000 sq. ft. S 36,000 sq. ft. SM
I-3	180' S 7 stories S 144,000 sq. ft. S 108,000 sq. ft. SM	120' S 5 stories S 96,000 sq. ft. S 72,000 sq. ft. SM	85' S 3 stories S 48,000 sq. ft. S 36,000 sq. ft. SM
I-4	65' NS 180' S 3 stories NS 9 stories S 76,500 sq. ft. NS 306,000 sq. ft. S 229,500 sq. ft. SM	65' NS 120' S 3 stories NS 6 stories S 51,000 sq. ft. NS 204,000 sq. ft. S 153,000 sq. ft. SM	65' NS 85' S 3 stories NS 4 stories S 25,500 sq. ft. NS 102,000 sq. ft. S 76,500 sq. ft. SM
M	65' NS 270' S 4 stories NS 12 stories S 61,500 sq. ft. NS 246,000 sq. ft. S 184,500 sq. ft. SM	65' NS 180' S 4 stories NS 8 stories S 41,000 sq. ft. NS 164,000 sq. ft. S 123,000 sq. ft. SM	65' NS 85' S 4 stories NS 6 stories S 25,625 sq. ft. NS 102,500 sq. ft. S 76,875 sq. ft. SM
R-1, R-2, R-4	65' (13R) 270' S 4 stories (13R) 18 stories S 61,500 sq. ft. (13R) 246,000 sq. ft. S 184,500 sq. ft. SM	65' (13R) 180' S 4 stories (13R) 12 stories S 41,000 sq. ft. (13R) 164,000 sq. ft. S 123,000 sq. ft. SM	65' (13R) 85' S 4 stories (13R) 8 stories S (R-4 = 5 stories) S 25,625 sq. ft. (13R) 102,500 sq. ft. S 76,875 sq. ft. SM
R-3	65' (13D) 270' S 4 stories (13D) 18 stories S UL Area sq. ft. (13D)	65' (13D) 180' S 4 stories (13D) 12 stories S UL Area sq. ft. (13D)	65' (13D) 85' S 4 stories (13D) 5 stories S UL Area sq. ft. (13D)
S-1	65' NS 270' S 4 stories NS 10 stories S 76,500 sq. ft. NS 306,000 sq. ft. S 229,500 sq. ft. SM	65' NS 180' S 4 stories NS 7 stories S 51,000 sq. ft. NS 204,000 sq. ft. S 153,000 sq. ft. SM	65' NS 85' S 4 stories NS 5 stories S 31,875 sq. ft. NS 127,500 sq. ft. S 95,625 sq. ft. SM
	65' NS 270' S 4 stories NS	65' NS 180' S 4 stories NS	65' NS 85' S 4 stories NS

S-2, S-3	12 stories	S	8 stories	S	5 stories	S
	115,500 sq. ft.	NS	77,000 sq. ft.	NS	48,125 sq. ft.	NS
	462,000 sq. ft.	S	308,000 sq. ft.	S	192,500 sq. ft.	S
	346,500 sq. ft.	SM	231,000 sq. ft.	SM	144,375 sq. ft.	SM
U	65'	NS	65'	NS	65'	NS
	270'	S	180'	S	85'	S
	4 stories	NS	4 stories	NS	4 stories	NS
	9 stories	S	6 stories	S	5 stories	S
	54,000 sq. ft.	NS	36,000 sq. ft.	NS	22,500 sq. ft.	NS
	216,000 sq. ft.	S	144,000 sq. ft.	S	90,000 sq. ft.	S
	162,000 sq. ft.	SM	108,000 sq. ft.	SM	67,500 sq. ft.	SM

Note: UL = Unlimited; NP = Not Permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; SM= Buildings two or more stories above grade plane equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

- See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- The NS value is only for use in evaluation of existing building height in accordance with the *Dallas Existing Building Code*.
- New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies, Condition 1, see Exception 1 of Section 903.2.6.
- New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *Dallas Fire Code*.
- For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- For Group E occupancies and rooms normally occupied by pre-kindergarten, kindergarten, or first grade students.
- For Group E child day care facilities see Section 308.6.1. All other child day care facilities must comply with the I-4 provisions of this code."

SECTION 5. That Subsection 504.3, "Height In Feet," of Section 504, "Building Height and Number of Stories," of Subchapter 5, "General Building Heights and Areas," of Chapter 53, "Dallas Building Code," of the Dallas City Code is amended to read as follows:

"504.3 Height in feet. The maximum height, in feet, of a building shall not exceed the limits specified in Tables 503 and 504.3.

Exception: Towers, spires, steeples and other roof structures shall be constructed of materials consistent with the required type of construction of the building except where other construction is permitted by Section 1510.2.5. Such structures shall not be used for habitation or storage. The structures shall be unlimited in height were of noncombustible materials and shall not extend more than 20 feet (6096 mm) above the allowable building height where of combustible materials (see Chapter 15 for additional requirements)."

SECTION 6. That Subsection 504.4, “Number of Stories,” of Section 504, “Building Height and Number of Stories,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“504.4 Number of stories. The maximum number of stories of a building shall not exceed the limits specified in Tables 503 and 504.4.”

SECTION 7. That Paragraph 506.2.1, “Single-Occupancy, One-Story Buildings,” of Subsection 506.2, “Allowable Area Determinations,” of Section 506, “Building Area,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“506.2.1 Single-occupancy, one-story buildings. The allowable area of a single-occupancy building with no more than one story above grade plane shall be determined in accordance with Equation 5-1:

$$A_a = A_t + (NS \times I_f) \quad \text{(Equation 5-1)}$$

where:

A_a = Allowable area (square feet).

A_t = Tabular allowable area factor (NS, S1, or S13R value, as applicable) in accordance with Tables 503 and 506.2.

NS = Tabular allowable area factor in accordance with Tables 503 and b 506.2 for nonsprinklered building (regardless of whether the building is sprinklered).

I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.”

SECTION 8. That Paragraph 506.2.3, “Single-Occupancy, Multistory Buildings,” of Subsection 506.2, “Allowable Area Determinations,” of Section 506, “Building Area,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“506.2.3 Single-occupancy, multistory buildings. The allowable area of a single-occupancy building with more than one story above grade plane shall be determined in accordance with Equation 5-2:

$$A_a = [A_t + (NS \times I_f)] \times S_a \quad \text{(Equation 5-2)}$$

where:

A_a = Allowable area (square feet).

A_t = Tabular allowable area factor (NS, S13R or SM value, as applicable) in accordance with Tables 503 and 506.2.

NS = Tabular allowable area factor in accordance with Tables 503 and 506.2 for a nonsprinklered building (regardless of whether the building is sprinklered).

I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.

S_a = Actual number of building stories above grade plane, not to exceed three. For buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2, use the actual number of building stories above grade plane, not to exceed four.

No individual story shall exceed the allowable area (A_a) as determined by Equation 5-2 using the value of $S_a = 1$."

SECTION 9. That Paragraph 506.2.4, "Mixed-Occupancy, Multistory Buildings," of Subsection 506.2, "Allowable Area Determinations," of Section 506, "Building Area," of Subchapter 5, "General Building Heights and Areas," of Chapter 53, "Dallas Building Code," of the Dallas City Code is amended to read as follows:

"506.2.4 Mixed-occupancy, multistory buildings. Each story of a mixed-occupancy building with more than one story above grade plane shall individually comply with the applicable requirements of Section 508.1. For buildings with more than three stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories, determined in accordance with Equation 5-3 based on the applicable provisions of Section 508.1, shall not exceed three.

$$A_a = [A_t + (NS \times I_f)] \quad \text{(Equation 5-3)}$$

where:

A_a = allowable area (square feet).

A_t = Tabular allowable area factor (NS, S13R or SM value, as applicable) in accordance with Tables 503 and 506.2.

NS = Tabular allowable area factor in accordance with Tables 503 and 506.2 for a nonsprinklered building (regardless of whether the building is sprinklered).

I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.

Exception: For buildings designed a separated occupancies under Section 508.4 and equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.2, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories as determined in accordance with Equation 5-3 based on the applicable provisions of Section 508.1, shall not exceed four.

506.2.4.1 Group H-2 or H-3 mixed occupancies. For a building containing Group H-2 or H-3 occupancies, the allowable area shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.”

SECTION 10. That Subsection 507.3, “Nonsprinklered, One-Story Buildings,” of Section 507, “Unlimited Area Buildings,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“507.3 [~~Nonsprinklered,~~] Q[~~o~~]ne-story buildings. The area of a Group F-2 or S-2 building no more than one story in height shall not be limited where the building is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width. Sprinklers shall be provided as per this code.”

SECTION 11. That Subsection 507.14, “Unlimited Area Based On Types of Construction,” of Section 507, “Unlimited Area Buildings,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“507.14 Unlimited area based on types of construction. The area of any five-story or less Type IIA, three-story or less Type II-B, or three-story or less Type IV building, except one housing Group H[~~Division 1, 2 or 3~~] occupancies, is unlimited if the building is provided with an *approved automatic sprinkler system* throughout as specified in Chapter 9. These provisions do not apply to *covered and open mall buildings, anchor buildings, or motion picture theaters.*

Exception: Unlimited area buildings may house Group H occupancies [~~Division 2 and 3~~] as specified in Section 507.8.”

SECTION 12. That Subparagraph 508.4.4.1, “Construction,” of Paragraph 508.4.4, “Separation,” of Subsection 508.4, “Separated Occupancies,” of Section 508, “Mixed Use and Occupancy,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“508.4.4.1 Construction. Required separations shall be *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both, so as to completely separate occupancies. *Mass timber elements serving as fire barriers or horizontal assemblies to separate occupancies in Type IV B or IV C construction shall be separated from the interior of the building with an approved thermal barrier consisting of a minimum of ½ inch (12.7 mm) gypsum board or a material that is tested in accordance with and meets the acceptance criteria of both the temperature transmission fire test and the integrity fire test of NFPA 275.*”

SECTION 13. That Paragraph 509.4.1, “Separation,” of Subsection 509.4, “Separation and Protection,” of Section 509, “Incidental Uses,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subparagraph 509.4.1.1, “Type IV B and IV C Construction,” to read as follows:

“509.4.1.1 Type IV B and IV C construction. Where Table 509 specifies a fire-resistance-rated separation, *mass timber* elements serving as *fire barriers* or a *horizontal assembly* in Type IV B or IV C construction shall be separated from the interior of the incidental use with an approved thermal barrier consisting of a minimum of ½ inch (12.7 mm) gypsum board or a material that is tested in accordance with and meets the acceptance criteria of both the temperature transmission fire test and the integrity fire test of NFPA 275.”

SECTION 14. That Paragraph 511.1.2, “Building Fire Areas,” of Subsection 511.1, “Area Limits,” of Section 511, “Area Limits,” of Subchapter 5, “General Building Heights and Areas,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“511.1.2 Nonsprinklered b[B]uilding fire areas. Nonsprinklered b[B]uilding fire areas must be limited in accordance with Section 903.2.13.”

SECTION 15. That Subchapter 6, “Types of Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Table 601.1, “Fire-Resistance Rating Requirements for Building Elements (Hours),” to read as follows:

**“TABLE 601.1
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS
(HOURS)”**

BUILDING ELEMENT	TYPE IV			
	A	B	C	HT
Primary structural frame ^g	3 ^a	2 ^a	2 ^a	HT
Bearing walls				
Exterior ^{f,g}	3	2	2	2
Interior	3	2	2	1/HT
Nonbearing walls and partitions	See Table 602			
Exterior				
Nonbearing walls and partitions	0	0	0	See Section 2304.11.2
Interior ^e				
Floor construction and associated secondary members (see Section 202)	2	2	2	HT
Floor construction and associated secondary members (see Section 202)	1.5	1	1	HT

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.
- g. In all occupancies, when the building is protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1, roof construction and the structural frame supporting the roof only may be of unprotected noncombustible materials or heavy-timber construction complying with Section 602.4. This provision may be used for roof construction, nonbearing partitions and nonbearing exterior walls in lieu of fire-retardant treated wood in a building meeting the requirements of Section 603.1, Item 1.”

SECTION 16. That Subsection 602.1, “General,” of Section 602, “Construction Classification,” of Subchapter 6, “Types of Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“602.1 General. Buildings and structures erected or to be erected, altered or extended in height or area shall be classified in one of the five construction types defined in Sections 602.2 through 602.5. The building elements shall have a *fire-resistance rating* not less than that specified in Tables 601 and 601.1 and exterior walls shall have a *fire-resistance rating* not less than that specified in Table 602. Where required to have a *fire-resistance rating* by Table 601, building elements shall comply with the applicable provisions of Section 703.2. The protection of openings, ducts and air transfer openings in building elements shall not be required unless required by other provisions of this code.

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 17. That Table 602, “Fire-Resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance,” of Section 602, “Construction Classification,” of Subchapter 6, “Types of Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

**“TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON
FIRE SEPARATION DISTANCE^{a, d, g, j}**

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H ^c	OCCUPANCY GROUP F-1, M, S-1 ^f	OCCUPANCY GROUP A, B, E, F-2, I, R, S-2 ^g , U ^{h, i}
X < 5 ^b	All	3	2	1
5 ≤ X < 10	I A, IV A Others	3 2	2 1	1 1
10 ≤ X < 30	I A, I B, IV A, IV B II B, V B Others	2 1 1	1 0 1	1 ^{d[e]} 0 1 ^{d[e]}
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

- a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- b. See Section 706.1.1 for party walls.
- c. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- d. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
- e. For special requirements for Group H occupancies, see Section 415.6.
- f. For special requirements for Group S aircraft hangars, see Section 412.4.1.
- g. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
- h. For special requirements on Group R-2, R-3 and Group U carports, see Section 406.3.5.1.
- i. Exterior walls of carports open on all sides and constructed entirely of noncombustible materials are not required to have a fire-resistance rating. Distance between individual carports and imaginary property lines must be a minimum of 3 feet. All carport projections must comply with Section 705.2.
- j. In buildings provided throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, Table 602 3-hour exterior wall protection may be reduced to 2-hour protection, Table 602 2-hour protection may be reduced to 1-hour protection. Table 602 1-hour protection cannot be reduced.”

SECTION 18. That Subsection 602.4, “Type IV,” of Section 602, “Construction Classification,” of Subchapter 6, “Types of Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“602.4 Type IV. Type IV construction [~~(Heavy Timber, HT)~~] is that type of construction in which the [~~exterior walls are noncombustible materials and the interior~~] building elements are *mass timber* [~~of solid~~] or *noncombustible materials* and have *fire-resistance ratings* in accordance with Table 601. *Mass timber* elements shall meet the *fire-resistance rating* requirements of this section based on either the *fire-resistance rating* of the *noncombustible protection*, the *mass timber*, or a combination of both and shall be determined in accordance with Section 703.2 or 703.3. The minimum dimensions and permitted materials for building elements shall comply with the provisions of this section and Section 2304.10. *Mass timber* elements of Type IV A, IV B and IV C construction shall be protected with *noncombustible protection* applied directly to the *mass timber* in accordance [~~laminated wood without concealed spaces. The details for Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying~~] with Section 602.4.1 through 602.4.3 The time assigned to the *noncombustible protection* [~~or 602.4.2~~] shall be determined in accordance with Section 703.8 and comply with Section 722.7 [~~permitted. Minimum solid sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued laminated members and structural composite lumber (SCL) members, the equivalent net finished width and depths corresponding to the minimum nominal width and depths of solid sawn lumber are required as specified in Table 602.4].~~]

Cross-laminated timber shall be labelled as conforming to PRG 320-18 as referenced in Section 2303.1.12.

Exterior load-bearing walls and *nonload-bearing walls* shall be *mass timber* construction, or shall be of *noncombustible construction* [~~(CLT) dimensions used in this section are actual dimensions~~].

Exception: *Exterior load bearing walls and nonload-bearing walls* of Type IV HT construction in accordance with Section 602.4.4.

The interior building elements, including *nonload-bearing walls* and partitions, shall be of *mass timber* construction or of *noncombustible construction*.

Exception: Interior building elements and *nonload-bearing walls* and partitions of Type IV HT construction in accordance with Section 602.4.4.

Combustible concealed spaces are not permitted except as otherwise indicated in Sections 602.4.1 through 602.4.4. Combustible stud spaces within light frame walls of Type IV HT construction shall not be considered concealed spaces, but shall comply with Section 718.

In buildings of Type IV A, B, and C, construction with an occupied floor located more than 75 feet above the lowest level of fire department access, up to and including 12 stories or 180 feet above grade plane, *mass timber* interior exit and elevator hoistway enclosures shall be protected in accordance with Section 602.4.1.2. In buildings greater than 12 stories or 180 feet above grade plane, interior exit and elevator hoistway enclosures shall be constructed of non-combustible materials.

602.4.1 Type IV A [~~Fire-retardant-treated wood in exterior walls~~]. Building elements in Type IV A construction shall be protected in accordance with Sections 602.4.1.1 through 602.4.1.6. The required *fire-resistance rating* of noncombustible elements and protected *mass timber* elements shall be determined in accordance [~~Fire-retardant-treated wood framing complying~~] with Section 703.2 or Section 703.3 [~~2303.2 shall be permitted within exterior wall assemblies with a 2-hour rating or less~~].

602.4.1.1 Exterior protection. The outside of exterior walls of *mass timber* construction shall be protected with *noncombustible protection* with a minimum assigned time of 40 minutes as determined in Section 722.7.1(1). All components of the exterior wall covering shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than 150 kW/m², a total heat release of less than 20 MJ/m² and an effective heat of combustion of less than 18 MJ/kg as determined in accordance with ASTM E 1354 and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E 84 or UL 723. The ASTM E 1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m².

602.4.1.2 Interior protection. Interior faces of all *mass timber* elements, including the inside faces of exterior *mass timber* walls and mass timber roofs, shall be protected with materials complying with Section 703.5.

602.4.1.2.1 Protection time. *Noncombustible protection* shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2) shall be permitted to be used for compliance with Section 722.7.1.

602.4.1.3 Floors. The floor assembly shall contain a noncombustible material not less than one inch in thickness above the *mass timber*. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with 602.4.1.2.

602.4.1.4 Roofs. The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.1.2. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

602.4.1.5 Concealed spaces. Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *Dallas Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Sections 602.4.1.2.

602.4.1.6 Shafts. Shafts shall be permitted in accordance with Sections 713 and Section 718. Both the shaft side and room side of *mass timber* elements shall be protected in accordance with Section 602.4.1.2.

602.4.2 Type IV B ~~[Cross-laminated timber in exterior walls]~~. Building elements in Type IV B construction ~~[Cross-laminated timber complying with Section 2303.1.4]~~ shall be protected in accordance with Sections 602.4.2.1 through 602.4.2.6. The required *fire-resistance rating* of noncombustible elements or *mass timber* elements shall be determined in accordance with Section 703.2 or 703.3. ~~[permitted within exterior wall assemblies with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one of the following:~~

- ~~1. Fire-retardant treated wood sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;~~
- ~~2. Gypsum board not less than ½ inch (12.7 mm) thick; or~~
- ~~3. A noncombustible material.]~~

602.4.2.1 Exterior protection. The outside face of exterior walls of *mass timber* construction shall be protected with *noncombustible protection* with a minimum assigned time of 40 minutes as determined in Section 722.7.1(1). All components of the *exterior wall* covering shall be of noncombustible material except water-resistive barriers having a peak heat release rate of less than 150 kW/m², a total heat release of less than 20 MJ/m² and an effective heat of combustion of less than 18 MJ/kg as determined in accordance with ASTM E 1354, and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E 84 or UL 723. The ASTM E 1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m².

602.4.2.2 Interior protection. Interior faces of all *mass timber* elements, including the inside face of exterior *mass timber* walls and *mass timber* roofs, shall be protected, as required by this section, with materials complying with Section 703.5.

602.4.2.2.1 Protection time. *Noncombustible protection* shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2) shall be permitted to be used for compliance with Section 722.7.1.

602.4.2.2.2 Protected area. All interior faces of all *mass timber* elements shall be protected in accordance with Section 602.4.2.2.1, including the inside face of exterior *mass timber* walls and *mass timber* roofs.

Exceptions: Unprotected portions of *mass timber* ceilings and walls complying with Section 602.4.2.2.4 and the following:

1. Unprotected portions of *mass timber* ceilings, including attached beams, shall be permitted and shall be limited to an area less than or equal to 100 percent of the floor area in any dwelling unit or fire area; or
2. Unprotected portions of *mass timber* walls, including attached columns, shall be permitted and shall be limited to an area less than or equal to 40 percent of the floor area in any dwelling unit or fire area; or
3. Unprotected portions of both walls and ceilings of *mass timber*, including attached columns and beams, in any dwelling unit or fire area shall be permitted in accordance with Section 602.4.2.2.3.
4. *Mass timber* columns and beams which are not an integral portion of walls or ceilings, respectively, shall be permitted to be unprotected without restriction of either aggregate area or separation from one another.

602.4.2.2.3 Mixed unprotected areas. In each *dwelling unit* or fire area, where both portions of ceilings and portions of walls are unprotected, the total allowable unprotected area shall be determined in accordance with Equation 6-1.

$$(U_{tc}/U_{ac}) + (U_{tw}/U_{aw}) \leq 1 \quad \text{(Equation 6-1)}$$

where:

U_{tc} = Total unprotected mass timber ceiling areas.

U_{ac} = Allowable unprotected mass timber ceiling area conforming to Section 602.4.2.2.2, Exception 1

U_{tw} = Total unprotected mass timber wall areas.

U_{aw} = Allowable unprotected mass timber wall area conforming to Section 602.4.2.2.2, Exception 2.

602.4.2.2.4 Separation distance between unprotected mass timber elements. In each dwelling unit or fire area, unprotected portions of *mass timber* walls shall be not less than 15 feet from unprotected portions of other walls measured horizontally along the floor.

602.4.2.3 Floors. The floor assembly shall contain a noncombustible material not less than one inch in thickness above the *mass timber*. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with Section 602.4.1.2.

602.4.2.4 Roofs. The interior surfaces of roof assemblies shall be protected in accordance with 602.4.2.2 except, in nonoccupiable spaces, they shall be treated as a concealed space with no portion left unprotected. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

602.4.2.5 Concealed spaces. Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *Dallas Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Section 602.4.1.2.

602.4.2.6 Shafts. Shafts shall be permitted in accordance with Section 713 and Section 718. Both the shaft side and room side of *mass timber* elements shall be protected in accordance with Section 602.4.1.2.

602.4.3 Type IV C [Columns]. Building elements in Type IV C construction shall be protected in accordance with Section 602.4.3.1 through 602.4.3.6. The required *fire-resistance rating* of building elements shall be determined in accordance with Section 703.2 or Section 703.3 ~~[Wood columns shall be sawn or glued laminated and shall not be less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an *approved* manner].~~

602.4.3.1 Exterior protection. The exterior side of walls of combustible construction shall be protected with *noncombustible protection* with a minimum assigned time of 40 minutes as determined in Section 722.7.1(1). All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than 150 kW/m², a total heat release of less than 20 MJ/m² and an effective heat of combustion of less than 18 MJ/kg as determined in accordance with ASTM E 1354 and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E 84 or UL 723. The ASTM E 1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m².

602.4.3.2 Interior protection. Mass timber elements are permitted to be unprotected.

602.4.3.3 Floors. Floor finishes in accordance with Section 804 shall be permitted on top of the floor construction.

602.4.3.4 Roofs. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

602.4.3.5 Concealed spaces. Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *Dallas Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected with *noncombustible protection* with a minimum assigned time of 40 minutes as determined in Section 722.7.1(1).

602.4.3.6 Shafts. Shafts shall be permitted in accordance with Section 713 and Section 718. Shafts, elevator hoistways and *interior exit stairway* enclosures shall be protected with *noncombustible protection* with a minimum assigned time of 40 minutes as determined in Section 722.7.1(1), on both the inside of the shaft and the outside of the shaft.

602.4.4 Type IV-HT [~~Floor framing~~]. Type IV-HT (Heavy Timber) construction is that type of construction in which the *exterior walls* are of noncombustible materials and the interior *building elements* are of solid wood, laminated heavy timber or *structural composite lumber* (SCL), without concealed spaces or with concealed spaces complying with Section 602.4.4.3. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, SCL and *cross-laminated timber* (CLT) and the details of Type IV construction shall comply with the provisions of this section and Section 2304.11. *Exterior walls* complying with Section 602.4.4.1 or 602.4.4.2 shall be permitted. Interior walls and partitions not less than 1-hour fire-resistance-rated or heavy timber conforming with Section 2304.11.2.2 shall be permitted. [~~Wood beams and girders shall be of sawn or glued-laminated timber and shall not be less than 6 inches (152 mm) nominal in width and~~]

not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.]

602.4.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant treated wood* framing and sheathing complying with Section 2303.2 shall be permitted within *exterior wall* assemblies with a 2-hour rating or less.

602.4.4.2 Cross-laminated timber in exterior walls. *Cross-laminated timber* (CLT) not less than 4 inches (102 mm) in thickness complying with Section 2303.1.4 shall be permitted within *exterior wall* assemblies with a 2-hour rating or less. Heavy timber structural members appurtenant to the *CLT exterior wall* shall meet the requirements of Table 2304.11 and be fire-resistance rated as required for the *exterior wall*. The exterior surface of the cross-laminated timber and heavy timber elements shall be protected by one of the following:

1. *Fire-retardant-treated wood* sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick.
2. *Gypsum board* not less than ½ inch (12.7 mm) thick.
3. A noncombustible material.

602.4.4.3 Concealed spaces. Concealed spaces shall not contain combustible materials other than *building elements* and electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *Dallas Mechanical Code*. Concealed spaces shall comply with applicable provisions of Section 718. Concealed spaces shall be protected in accordance with one or more of the following:

1. The building shall be sprinklered throughout in accordance with Section 903.3.1.1 and automatic sprinklers shall also be provided in the concealed space.
2. The concealed space shall be completely filled with noncombustible insulation.
3. Surfaces within the concealed space shall be fully sheathed with not less than 5/8-inch Type X *gypsum board*.

Exception: Concealed spaces within interior walls and partitions with a 1-hour or greater *fire-resistance rating* complying with Section 2304.11.2.2 shall not require additional protection.

602.4.4.4 Exterior structural members. Where a horizontal separation of 20 feet (6096 mm) or more is improved, wood columns and arches conforming to heavy timber sizes complying with Section 2304.11 shall be permitted to be used externally.

~~[602.4.5 Roof framing. Wood frame or glued laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate or not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall not be less than 3 inches (76 mm) nominal in thickness. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.]~~

602.4.6 Floors. Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section 602.4.6.1 or 602.4.6.2.

602.4.6.1 Sawn or glued laminated plank floors. Sawn or glued laminated plank floors shall be one of the following:

- ~~1. Sawn or glued laminated planks, splined or tongue and groove, of not less than 3 inches (76 mm) nominal in thickness covered with 1 inch (25 mm) nominal dimension tongue and groove flooring, laid crosswise or diagonally, 15/32 inch (12 mm) wood structural panel or 1/2 inch (12.7 mm) particleboard.~~
- ~~2. Planks not less than 4 inches (102 mm) nominal in width set on edge close together and well spiked and covered with 1 inch (25 mm) nominal dimension flooring or 15/32 inch (12 mm) wood structural panel or 1/2 inch (12.7 mm) particleboard.~~

~~The lumber shall be laid so that no continuous line of joints will occur except at points of support. Floors shall not extend closer than 1/2 inch (12.7 mm) to walls. Such 1/2 inch (12.7 mm) space shall be covered by a molding fastened to the wall and so arranged that it will not obstruct the swelling or shrinkage movements of the floor. Corbelling of masonry walls under the floor shall be permitted to used in place of molding.~~

602.4.6.2 Cross-laminated timber floors. ~~Cross-laminated timber shall be not less than 4 inches (102 mm) in thickness. Cross-laminated timber shall be continuous from support to support and mechanically fastened to one another. Cross-laminated timber shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.~~

602.4.7 Roofs. ~~Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue and groove plank, not less than 2 inches (51 mm) nominal in thickness; 1 1/8-inch-thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.~~

~~Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in thickness and shall be continuous from support to support and mechanically fastened to one another.~~

602.4.8 Partitions and walls. ~~Partitions and walls shall comply with Section 602.4.8.1 or 602.4.8.2.~~

602.4.8.1 Interior walls and partitions. ~~Interior walls and partitions shall be of solid wood construction formed by not less than two layers of 1 inch (25 mm) matched boards or laminated construction 4 inches (102 mm) thick, or of 1-hour fire resistance-rated construction.~~

602.4.8.2 Exterior walls. ~~Exterior walls shall be of one of the following:~~

- ~~1. Noncombustible materials.~~
- ~~2. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:~~
 - ~~2.1. Fire retardant treated wood in accordance with Section 2303.2 and complying with Section 602.4.1.~~
 - ~~2.2. Cross-laminated timber complying with Section 602.4.2.~~

602.4.9 Exterior structural members. ~~Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes shall be permitted to be used externally.]”~~

SECTION 19. That Section 703, “Fire-Resistance Ratings and Fire Tests,” of Subchapter 7, “Fire and Smoke Protection Features,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subsection 703.8, “Determination of Noncombustible Protection Time Contribution,” to read as follows:

“703.8 Determination of noncombustible protection time contribution. The time, in minutes, contributed to the *fire-resistance rating* by the *noncombustible protection* of *mass timber* building elements, components, or assemblies, shall be established through a comparison of assemblies tested using procedures set forth in ASTM E119 or UL 263. The test assemblies shall be identical in construction, loading, and materials, other than the *noncombustible protection*. The two test assemblies shall be tested to the same criteria of structural failure.

1. Test Assembly 1 shall be without protection.
2. Test Assembly 2 shall include the representative *noncombustible protection*. The protection shall be fully defined in terms of configuration details, attachment details, joint sealing details, accessories and all other relevant details.

The *noncombustible protection* time contribution shall be determined by subtracting the fire resistance time, in minutes, of Test Assembly 1 from the fire resistance time, in minutes, of Test Assembly 2.”

SECTION 20. That Section 703, “Fire-Resistance Ratings and Fire Tests,” of Subchapter 7, “Fire and Smoke Protection Features,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subsection 703.9, “Sealing of Adjacent Mass Timber Elements,” to read as follows:

“703.9 Sealing of adjacent mass timber elements. In buildings of Type IV A, IV B, and IV C construction, sealant or adhesive shall be provided to resist the passage of air in the following locations:

1. At abutting edges and intersections of *mass timber* building elements required to be fire-resistance- rated.
2. At abutting intersections of *mass timber* building elements and building elements of other materials where both are required to be fire resistance-rated.

Sealants shall meet the requirements of ASTM C920. Adhesives shall meet the requirements of ASTM D3498.

Exception: Where sealant or adhesive is not a required component of a fire resistance-rated assembly.”

SECTION 21. That Paragraph 718.2.1, “Fireblocking Materials,” of Subsection 718.2, “Fireblocking,” of Section 718, “Concealed Spaces,” of Subchapter 7, “Fire and Smoke Protection Features,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“718.2.1 Fireblocking materials. Fireblocking shall consist of the following materials:

1. Two-inch (51 mm) nominal lumber.
2. Two thicknesses of 1-inch (25 mm) nominal lumber with broken lap joints.
3. One thickness of 0.719-inch (18.3 mm) wood structural panels with joints backed by 0.719-inch (18.3 mm) wood structural panels.
4. One thickness of 0.75-inch (19.1 mm) particleboard with joints backed by 0.75-inch (19 mm) particleboard.
5. One-half-inch (12.7 mm) gypsum board.
6. One-fourth-inch (6.4 mm) cement-based millboard.
7. Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place.
8. Cellulose insulation installed as tested for the specific application.
9. Mass timber complying with Section 2304.10.”

SECTION 22. That Section 722, “Calculated Fire Resistance,” of Subchapter 7, “Fire and Smoke Protection Features,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subsection 722.7, “Fire-Resistance Rating of Mass Timber,” to read as follows:

“722.7 Fire-resistance rating of mass timber. The required fire resistance of *mass timber* elements in Section 602.4 shall be determined in accordance with Section 703.2 or Section 703.3. The *fire-resistance rating* of building elements shall be as required in Tables 601 and 602 and as specified elsewhere in this code. The *fire-resistance rating* of the *mass timber* elements shall consist of the fire resistance of the unprotected element added to the protection time of the *noncombustible protection*.

722.7.1 Minimum required protection. Where required by Sections 602.4.1 through 602.4.3, noncombustible protection shall be provided for *mass timber* building elements in accordance with Table 722.7.1(1). The rating, in minutes, contributed by the *noncombustible protection* of *mass timber* building elements, components, or assemblies, shall be established in accordance with Section 703.8. The protection contributions indicated in Table 722.7.1(2) shall be deemed to comply with this requirement when installed and fastened in accordance with Section 722.7.2.

722.7.2 Installation of gypsum board noncombustible protection. Gypsum board complying with Table 722.7.1(2) shall be installed in accordance with this section.

722.7.2.1 Interior surfaces. Layers of Type X gypsum board serving as *noncombustible protection* for interior surfaces of wall and ceiling assemblies determined in accordance with Table 722.7.1(1) shall be installed in accordance with the following:

1. Each layer shall be attached with Type S drywall screws of sufficient length to penetrate the mass timber at least 1 inch when driven flush with the paper surface of the gypsum board.

Exception: The third layer, where determined necessary by Section 722.7, shall be permitted to be attached with 1-inch #6 Type S drywall screws to furring channels in accordance with ASTM C645.

2. Screws for attaching the base layer shall be 12 inches on center in both directions.
3. Screws for each layer after the base layer shall be 12 inches on center in both directions and offset from the screws of the previous layers by 4 inches in both directions.
4. All panel edges of any layer shall be offset 18 inches from those of the previous layer.
5. All panel edges shall be attached with screws sized and offset as in items 1 through 4 above and placed at least 1-inch but not more than 2 inches from the panel edge.

6. All panels installed at wall-to-ceiling intersections shall be installed such that ceiling panels are installed first and the wall panels are installed after the ceiling panel has been installed and is fitted tight to the ceiling panel. Where multiple layers are required, each layer shall repeat this process.
7. All panels installed at a wall-to-wall intersection shall be installed such that the panels covering an exterior wall or a wall with a greater fire resistance rating shall be installed first and the panels covering the other wall shall be fitted tight to the panel covering the first wall. Where multiple layers are required, each layer shall repeat this process.
8. Panel edges of the face layer shall be taped and finished with joint compound. Fastener heads shall be covered with joint compound.
9. Panel edges protecting *mass timber* elements adjacent to unprotected *mass timber* elements in accordance with Section 602.4.2.2 shall be covered with 1¼ inch metal corner bead and finished with joint compound.

722.7.2.2 Exterior surfaces. Layers of Type X gypsum board serving as *noncombustible protection* for the outside of the exterior heavy timber walls determined in accordance with Table 722.7.1(1) shall be fastened 12 inches on center each way and 6 inches on center at all joints or ends. All panel edges shall be attached with fasteners located at least 1-inch but not more than 2 inches from the panel edge. Fasteners shall comply with one of the following:

1. Galvanized nails of minimum 12 gage with a 7/16-inch head of sufficient length to penetrate the *mass timber* a minimum of 1 inch.
2. Screws which comply with ASTM C 1002 (Type S, Type W, or Type G) of sufficient length to penetrate the *mass timber* a minimum of 1 inch.

TABLE 722.7.1 (1)
PROTECTION REQUIRED FROM NONCOMBUSTIBLE COVERING MATERIAL

REQUIRED FIRE-RESISTANCE RATING OF BUILDING ELEMENT PER TABLES 601 AND 602 (hours)	MINIMUM PROTECTION REQUIRED FROM NONCOMBUSTIBLE PROTECTION (minutes)
1	40
2	80
3 or more	120

TABLE 722.7.1 (2)
PROTECTION REQUIRED FROM NONCOMBUSTIBLE COVERING MATERIAL

NONCOMBUSTIBLE PROTECTION	PROTECTION CONTRIBUTION (minutes)
1/2-inch Type X Gypsum Board	25
5/8-inch Type X Gypsum Board	40

“

SECTION 23. That Subsection 803.3, “Heavy Timber Exemption,” of Section 803, “Wall and Ceiling Finishes,” of Subchapter 8, “Interior Finishes,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by to read as follows:

“803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of heavy timber [~~Type IV~~] construction in Section 602.4 or Section 2304.10 shall not be subject to *interior finish* requirements except in interior exit stairways, interior exit ramps, and exit passageways.”

SECTION 24. That Paragraph 803.13.3, “Heavy Timber Construction,” of Subsection 803.13, “Application of Interior Finish Materials to Fire-Resistance-Rated or Noncombustible Building Elements,” of Section 803, “Wall and Ceiling Finishes,” of Subchapter 8, “Interior Finishes,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by to read as follows:

“803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of heavy timber [~~Type IV~~] construction in Section 602.4 or 2304.10 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.11.1.1.”

SECTION 25. That Paragraph [F] 903.2.8, “Group R,” of Subsection [F] 903.2, “Where Required,” of Section 903, “Automatic Sprinkler Systems,” of Subchapter 9, “Fire Protection Systems,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by to read as follows:

“[F] 903.2.8 Group R. An *automatic sprinkler system* installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R *fire area*.

Exception: A *dwelling, townhome, townhouse*, Group R-4 care facility with five or fewer persons that are within a single-family dwelling, or lodging house which complies with Section 903.2.13.

[F] 903.2.8.1 Group R-3. An *automatic sprinkler system* installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 occupancies.

[F] 903.2.8.2 Group R-4 Condition 1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.3 shall be permitted in Group R-4 Condition 1 occupancies.

[F] 903.2.8.3 Group R-4 Condition 2. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4 Condition 2 occupancies. Attics shall be protected in accordance with Section 903.2.8.3.1 or 903.2.8.3.2.

[F] 903.2.8.3.1 Attics used for living purposes, storage or fuel-fired equipment. Attics used for living purposes, storage or fuel-fired equipment shall be protected throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.2.

[F] 903.2.8.3.2 Attics not used for living purposes, storage or fuel-fired equipment. Attics not used for living purposes, storage or fuel-fired equipment shall be protected in accordance with one of the following:

1. Attics protected throughout by a heat detector system arranged to activate the building fire alarm system in accordance with Section 907.2.10.
2. Attics constructed of noncombustible materials.
3. Attics constructed of fire-retardant-treated wood framing complying with Section 2303.2.
4. The *automatic sprinkler system* shall be extended to provide protection throughout the attic space.”

SECTION 26. That Paragraph 903.2.13, “Building Fire Areas,” of Subsection [F] 903.2, “Where Required,” of Section 903, “Automatic Sprinkler Systems,” of Subchapter 9, “Fire Protection Systems,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by to read as follows:

“903.2.13 Nonsprinklered b[B]uilding fire areas. Any qualified building area must provide a minimum number of fire walls throughout the building such that no building fire area exceeds the limits of the number listed in Table 903.2.13. Qualified building area is the total allowable area which has been determined first by the methods of increase as given in Section 506 without using the increases for sprinklers.

Exception: Fire walls are not required in accordance with this section in any of the following cases:

1. Buildings that have an *approved automatic sprinkler system* installed throughout in accordance with Sections 903.3.1.1 and 903.3.1.2.
2. Open air portions of Group A, Division 5 occupancies.
3. Open parking garages complying with Section 406.5.
4. Buildings of Type I or Type II construction used exclusively for noncombustible contents or the storage of noncombustible material not packed or crated in combustible material.
5. The floor area of existing nonsprinklered buildings housing other than Group H occupancies may be increased by not more than 5 percent. The floor area increase must not exceed 2,500 square feet (232.25 m²). Not more than one increase in floor area is permitted under this exception.
6. Membrane structures when authorized by the building official.

SECTION 27. That Table 903.2.13, “Building Fire Area Limits (Sq. Ft.),” of Subsection [F] 903.2, “Where Required,” of Section 903, “Automatic Sprinkler Systems,” of Subchapter 9, “Fire Protection Systems,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by to read as follows:

**“TABLE 903.2.13
NONSPRINKLERED BUILDING FIRE AREA LIMITS (SQ. FT.)**

GROUP	TYPE OF CONSTRUCTION									
	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE IV	TYPE V	
	A	B	A	B	A	B	A-C	HT	A	B
A ¹	25,000	25,000	15,000	8,500	14,000	8,500	NP	15,000	11,500	5,500
A ^{2, 3}	25,000	25,000	15,000	8,500	15,000	8,500	NP	15,000	15,000	5,500
A ⁴ , F, M, S-1, S-2 ⁵	25,000	25,000	15,000	10,000	15,000	10,000	NP	15,000	15,000	7,500
A-4 ⁶	@	@	@	@	@	@	NP	@	@	@
A-5 ⁷ , B ⁸ , E	35,000	35,000	20,000	15,000	20,000	15,000	NP	20,000	15,000	7,500
B ⁹	25,000	25,000	15,000	10,000	15,000	10,000	NP	15,000	15,000	7,500
H, I-1, I-3, I-4	0	0	0	0	0	0	NP	0	0	0
I-2	0	0	0	0	0	NP	NP	0	0	NP
R	7,500	7,500	7,500	7,500	7,500	7,500	NP	7,500	7,500	7,500
U ¹⁰	@	@	@	@	@	@	NP	@	@	@
U ^{11, 12}	N/A	N/A	N/A	N/A	N/A	N/A	NP	N/A	N/A	N/A

For SI: 1 foot = 305 mm, 1 square foot = 0.0929 m².

NP: Not Permitted

NA: Not Applicable

1. Assembly with a stage and occupant load of 1,000 or more.
2. Assembly with a stage and occupant load of less than 1,000.
3. Assembly without a stage with occupant load of 300 or more.
4. Assembly without a stage with occupant load of less than 300.
5. Open parking garages. See Sections 406.5, 403.1, and 903.2.13, Exception 3.
6. Indoor sports, see Footnote 1, 2, 3 or 4, as appropriate.
7. Stadiums, reviewing stands, amusement park structures not with other A occupancy. See Sections 903.2.13 and 403.1.
8. Office buildings, police and fire stations, buildings with rooms used for education beyond 12th grade with less than 50 persons.
9. All other B occupancies.

10. Private garages and carports. See Section 406.3.
11. Fences over 6 feet high, tanks, sheds and agricultural buildings not classifiable in other occupancies.
12. Towers, See Section 412.”

SECTION 28. That Paragraph 1007.1.1, “Two Exits or Exit Access Doorways,” of Subsection 1007.1, “General,” of Section 1007, “Exit or Exit Access Doorway Configuration,” of Subchapter 10, “Means of Egress,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by to read as follows:

“1007.1.1 Two exits or exit access doorways. Where two exits, exit access doorways, exit access stairways or ramps, or any combination thereof, are required from any portion of the exit access, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between them. Interlocking or scissor stairways shall be counted as one exit stairway.

Exceptions:

1. Where interior exit stairways or ramps are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1020, the required exit separation shall be measured along the shortest direct line of travel within the corridor.
2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance shall be not less than one-third ($\frac{1}{3}$) of the length of the maximum overall diagonal dimension of the area served.
3. Interlocking *stairs* are permitted to be counted as two *exits* if all of the following conditions are met:
 - 3.1. The building is not a *high-rise*;
 - 3.2. The distance between exit doors complies with Section 1007.1;
 - 3.3. The building is equipped throughout with an *automatic sprinkler system* in accordance with the Section 903.3.1.1.
 - 3.4. Each *stairway* is separated from each other and from the remainder of the building by construction having a fire-resistance rating of not less than 2 hours with no openings or penetrations between the *stairways* other than those for standpipes and *automatic sprinkler systems*. The separation between the *stairways* is permitted to be constructed as a single wall; and

- 3.5. Each *exit* meets all of the requirements including the smokeproof enclosure provisions in Section 1023 including the smokeproof enclosure provisions of Section 909.20 [~~except as otherwise noted in this exception~~].

1007.1.1.1 Measurement point. The separation distance required in Section 1007.1.1 shall be measured in accordance with the following:

1. The separation distance to exit or exit access doorways shall be measured to any point along the width of the doorway.
2. The separation distance to exit access stairways shall be measured to the closest riser.
3. The separation distance to exit access ramps shall be measured to the start of the ramp run.”

SECTION 29. That Paragraph 1007.1.2, “Three or More Exits or Exit Access Doorways,” of Subsection 1007.1, “General,” of Section 1007, “Exit or Exit Access Doorway Configuration,” of Subchapter 10, “Means of Egress,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subparagraph 1007.1.2.1, “Interlocking Stairs When Allowed As Separate Exits With Three or More Exits or Exit Access Doorways,” to read as follows:

“1007.1.2.1 Interlocking stairs when allowed as separate exits with three or more exits or exit access doorways. Where access to three or more *exits* is required, not less than two *exit* or *exit access doorways* shall be arranged in accordance with the provisions of Section 1007.1.1. Additional required *exit* or *exit access doorways* shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available. In addition, the interlocking stairs *exit doorways* terminating at the exit discharge shall be arranged a reasonable distance apart equivalent to the exit separation required in Section 1007.1.1.”

SECTION 30. That Paragraph [BG] 1510.2.5, “Type of Construction,” of Subsection [BG] 1510.2, “Penthouses,” of Section 1510, “Rooftop Structures,” of Subchapter 15, “Roof Assemblies and Rooftop Structures,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built. All structures must be designed by an engineer registered in the State of Texas.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of Type IV heavy timber construction complying with Sections 602.4 and 2304.10 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.”

SECTION 31. That Section 1604, “General Design Requirements,” of Subchapter 16, “Structural Design,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subsection 1604.11, “Seismic Types IV A, B, C and HT,” to read as follows:

“1604.11 Seismic systems of Types IV A, B, C and HT. The vertical elements of the seismic force-resisting system for structures of Types IV A, IV B, and IV C shall conform to one of the types indicated in ASCE 7-10 Table 12.2-1 or a combination of systems as permitted in ASCE 7-10 Sections 12.2.2, 12.2.3, and 12.2.4. Use of seismic force-resisting systems not contained in ASCE 7-10 Table 12.2-1 shall be permitted contingent on submittal to and approval by the *building official* and independent structural design review of an accompanying set of design criteria and substantiating analytical and test data as outlined in ASCE 7-10 Section 12.2.1.

Structures of Type IV HT may be designed in accordance with Alternative Means and Methods as approved by the building official.”

SECTION 32. That Paragraph 1705.1.1, “Special Cases,” of Subsection 1705.1, “General,” of Section 1705, “Required Special Inspections and Tests,” of Subchapter 17, “Special Inspections and Tests,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“1705.1.1 Special cases. *Special inspections* and tests shall be required for proposed work that is, in the opinion of the *building official*, unusual in its nature or to satisfactorily administer other provisions of the codes, such as, but not limited to, the following examples:

1. Construction materials and systems that are alternatives to materials and systems prescribed by this code.
2. Unusual design applications of materials described in this code.
3. Materials and systems required to be installed in accordance with additional manufacturer’s instructions that prescribe requirements not contained in this code or in standards referenced by this code.
4. Work designated for special inspections as specified in Section 304 of Chapter 52, “Administrative Procedures for the Construction Codes,” of the Dallas City Code.”

SECTION 33. That Subsection 1705.5, “Wood Construction,” of Section 1705, “Required Special Inspections and Tests,” of Subchapter 17, “Special Inspections and Tests,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Paragraph 1705.5.3, “Mass Timber Construction,” to read as follows:

“1705.5.3 Mass timber construction. *Special inspections of mass timber* elements in Types IV-A, IV-B and IV-C construction shall be in accordance with Table 1705.5.3.”

SECTION 34. That Subsection 1705.5, “Wood Construction,” of Section 1705, “Required Special Inspections and Tests,” of Subchapter 17, “Special Inspections and Tests,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Table 1705.5.3, “Required Special Inspections of Mass Timber Construction,” to read as follows:

**“TABLE 1705.5.3
REQUIRED SPECIAL INSPECTIONS OF MASS TIMBER CONSTRUCTION**

TYPE		CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	
1.	Inspection of anchorage and connections of mass timber construction to timber deep foundation systems.	—	X	
2.	Inspect erection of mass timber construction.	----	X	
3.	Inspection of connections where installation methods are required to meet design loads.			
	Threaded fasteners	Verify use of proper installation equipment.	----	X
		Verify use of pre-drilled holes where required.	----	X
		Inspect screws, including diameter, length, head type, spacing, installation angle and depth.	----	X
	Adhesive anchors installed in horizontal or upwardly inclined orientation to resist sustained tension loads.		X	----
	Adhesive anchors not defined in preceding cells.		----	X
	Bolted connections.		----	X
	Concealed connections.		----	X

“

SECTION 35. That Section 1705, “Required Special Inspections and Tests,” of Subchapter 17, “Special Inspections and Tests,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Subsection 1705.19, “Sealing of Mass Timber,” to read as follows:

“1705.19 Sealing of mass timber. Periodic special inspections of sealants or adhesives shall be conducted where sealant or adhesive required by Section 703.9 is applied to *mass timber* building elements as designated in the *approved* construction documents.”

SECTION 36. That Subsection 2303.1, “General,” of Section 2303, “Minimum Standards and Quality,” of Subchapter 23, “Wood,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Paragraph 2303.1.14, “Structural Glued Cross-Laminated Timber,” to read as follows:

“2303.1.14 Structural glued cross-laminated timber. *Cross-laminated timber* shall be manufactured and identified in accordance with ANSI/APA PRG 320.”

SECTION 37. That Subsection 2304.10, “Connectors and Fasteners,” of Section 2304, “General Construction Requirements,” of Subchapter 23, “Wood,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Paragraph 2304.10.8, “Connection Fire-Resistance Rating,” to read as follows:

“2304.10.8 Connection fire-resistance rating. *Fire-resistance* ratings for connections in Type IV-A, IV-B or IV-C construction shall be determined by one of the following:

1. Testing in accordance with Section 703.2 where the connection is part of the *fire-resistance* test.
2. Engineering analysis that demonstrates that the temperature rise at any portion of the connection is limited to an average temperature rise of 250°F (139°C), and a maximum temperature rise of 325°F (181°C), for a time corresponding to the required *fire-resistance* rating of the structural element being connected. For the purposes of this analysis, the connection includes connectors, fasteners and portions of wood members included in the structural design of the connection.”

SECTION 38. That Subsection 2304.11, “Heavy Timber Construction,” of Section 2304, “General Construction Requirements,” of Subchapter 23, “Wood,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“2304.11 Heavy timber construction. Where a structure, ~~[or]~~ portion thereof or individual structural elements are [is] required ~~[to be of Type IV construction]~~ by the ~~[other]~~ provisions of this code to be of heavy timber, the building elements therein shall comply with the applicable provisions of Sections 2304.10.1 [2304.11.1] through 2304.10.4 [2304.11.5]. Minimum dimensions of heavy timber shall comply with the applicable requirements in Table 2304.10 based on roofs or floors supported and the configuration of each structural elements, or in Sections 2304.10.2 through 2304.10.4. Lumber decking shall be in accordance with Section 2304.8.

2304.11.1 Details of heavy timber structural members. Heavy timber structural members shall be detailed and constructed in accordance with Sections 2304.11.1.1 through 2304.11.1.3. ~~[Columns. Columns shall be continuous or superimposed throughout all stories by means of reinforced concrete or metal caps with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.]~~

2304.11.1.1 Columns ~~[connections]~~. Minimum dimensions of columns shall be in accordance with Table 2304.11. Columns shall be continuous or superimposed throughout all stories and connected in an approved manner. Girders and beams at column connections shall be closely fitted around columns and adjoining ends shall be cross tied to each other, or intertied by caps or ties, to transfer horizontal loads across joints. Wood bolsters shall not be placed on tops of columns unless the columns support roof loads only. Where traditional heavy timber detailing is used, connections shall be by means of reinforced concrete or metal caps with brackets, by properly designed steel or iron caps, with pintles and base plates, by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.

2304.11.1.2 Floor framing. Minimum dimensions of floor framing shall be in accordance with Table 2304.11. *Approved* wall plate boxes or hangers shall be provided where wood beams, girders or trusses rest on masonry or concrete walls. Where intermediate beams are used to support a floor, they shall rest on top of girders, or shall be supported by ~~[ledgers or blocks securely fastened to the sides of the girders, or they shall be supported by]~~ an *approved* metal hanger into which the ends of the beams shall be closely fitted. Where traditional heavy timber detailing is used, these connections shall be permitted to be supported by ledgers or blocks securely fastened to the sides of the girders.

2304.11.1.3 Roof framing. Minimum dimensions of roof framing shall be in accordance with Table 2304.11. Every roof girder and not less than ~~[at least]~~ every alternate roof beam shall be anchored to its supporting member to resist forces as required in Chapter 16~~[- and every monitor and every sawtooth construction shall be anchored to the main roof construction. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof].~~

2304.11.2 Partitions and walls. Partitions and walls shall comply with Section 2304.11.2.1 or 2304.11.2.2.

2304.11.2.1 Exterior walls. Exterior walls shall be permitted to be *cross-laminated timber* meeting the requirements of Section 2303.1.12.

2304.11.2.2 Interior walls and partitions. Interior walls and partitions shall be of solid wood construction formed by not less than two layers of 1-inch (25 mm) matched boards or laminated construction 4 inches (102 mm) thick, or of 1-hour fire-resistance-rated construction.

2304.11.3 Floors. Floors shall be without concealed spaces or with concealed spaces complying with Section 602.4.4.3. Wood floors shall be constructed in accordance with Section 2304.11.3.1 or 2304.11.3.2.

2304.11.3.1 Cross-laminated timber floors. *Cross-laminated timber* shall be not less than 4 inches (102 mm) in actual thickness. *Cross-laminated timber* shall be continuous from support to support and mechanically fastened to one another. *Cross-laminated timber* shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbeling of masonry walls under the floor shall be permitted to be used.

2304.11.3.2 Sawn or glued-laminated plank floors. Sawn or glued-laminated plank floors shall be one of the following:

1. Sawn or glued-laminated planks, splined or tongue-and-groove, of not less than 3 inches (76 mm) nominal in thickness covered with 1-inch (25 mm) nominal dimension tongue-and-groove flooring, laid crosswise or diagonally, 15/32-inch (12 mm) wood structural panel or ½-inch (12.7 mm) particleboard.
2. Planks not less than 4 inches (102 mm) nominal in width set on edge close together and well spiked and covered with 1-inch (25 mm) nominal dimension flooring and 15/32-inch (12 mm) wood structural panel or ½-inch (12.7 mm) particleboard.

The lumber shall be laid so that continuous lines of joints will occur only at points of support. Floors shall not extend closer than ½-inch (12.7mm) to walls. Such ½-inch (12.7 mm) space shall be covered by a molding fastened to the wall and so arranged that it will not obstruct the swelling or shrinkage movements of the floor. Corbelling of masonry walls under the floor shall be permitted to be used in place of molding.

2304.11.4 Roof [Floor] decks. Roofs shall be without concealed spaces or with concealed spaces complying with Section 602.4.4.3. Roof [Floor] decks [and covering shall not extend closer than ½ inch (12.7 mm) to walls. Such ½-inch (12.7 mm) spaces] shall be constructed in accordance Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be an alternative that provides equivalent fire resistance and structural properties. Where supported by a wall, roof decks shall be anchored to walls to resist forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or approved hardware of sufficient strength to resist prescribed forces [covered by a molding fastened to the wall either above or below the floor and arranged such that the molding will not obstruct the expansion or contraction movements of the floor. Corbeling of masonry walls under floors is permitted in place of such molding].

2304.11.4.1 Cross-laminated timber roofs. *Cross-laminated timber* roofs shall be not less than 3 inches (76 mm) nominal in thickness and shall be continuous from support to support and mechanically fastened to one another.

2304.11.4.2 Sawn, wood structural panel, or glued-laminated plank roofs. Sawn, wood structural panel, or glued-laminated plank roofs shall be one of the following:

1. Sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness.
2. 1/8-inch thick (32 mm) wood structural panel (exterior glue).
3. Planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors.

~~[2304.11.5 Roof decks. Where supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof.]”~~

SECTION 39. That Section 2304, “General Construction Requirements,” of Subchapter 23, “Wood,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Table 2304.11, “Minimum Dimensions of Heavy Timber Structural Members,” to read as follows:

**“TABLE 2304.11
MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS**

SUPPORTING	HEAVY TIMBER STRUCTURAL ELEMENTS	MINIMUM NOMINAL SOLID SAWN SIZE		MINIMUM GLUED- LAMINATED NET SIZE		MINIMUM STRUCTURAL COMPOSITE LUMBER NET SIZE	
		Width, inch	Depth, inch	Width, inch	Depth, inch	Width, inch	Depth, inch
Floor loads only or combined floor and roof loads	Columns; Framed sawn or glued-laminated timber arches that spring from the floor line; Framed timber trusses	8	8	6 ¾	8 ¼	7	7 ½
	Wood beams and girders	6	10	5	10 ½	5 ¼	9 ½
Roof loads only	Columns (roof and ceiling loads); Lower half of: wood-frame or glued-laminated arches that spring from the floor line or from grade	6	8	5	8 ¼	5 ¼	7 ½
	Upper half of: wood-frame or glued-laminated arches that spring from the floor line or from grade	6	6	5	6	5 ¼	5 ½
	Framed timber trusses and other roof framing; ^a Framed or glued-laminated arches that spring from the top of walls or wall abutments	4 ^b	6	3 ^b	6 7/8	3 ½ ^b	5 ½

For SI: 1 inch = 25.4 mm.

- a. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches nominal in thickness.
- b. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches nominal in width.”

SECTION 40. That Subsection 2603.4, “Thermal Barrier,” of Section 2603, “Foam Plastic Insulation,” of Subchapter 26, “Plastic,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“2603.4 Thermal barrier. Except as provided for in Sections 2603.4.1 and 2603.10, foam plastic shall be separated from the interior of a building by an approved thermal barrier of ½-inch (12.7 mm) gypsum wallboard, heavy timber in accordance with Section 602.4 or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275. Combustible concealed spaces shall comply with Section 718.

2603.4.1 Thermal barrier not required. The thermal barrier specified in Section 2603.4 is not required under the conditions set forth in Sections 2603.4.1.1 through 2603.4.1.14.

2603.4.1.1 Masonry or concrete construction. A thermal barrier is not required for foam plastic installed in a masonry or concrete wall, floor or roof system where the foam plastic insulation is covered on each face by not less than 1-inch (25 mm) thickness of masonry or concrete.

2603.4.1.2 Cooler and freezer walls. Foam plastic installed in a maximum thickness of 10 inches (254 mm) in cooler and freezer walls shall:

1. Have a flame spread index of 25 or less and a smoke-developed index of not more than 450, where tested in a minimum 4-inch (102 mm) thickness.
2. Have flash ignition and self-ignition temperatures of not less than 600° F and 800° F (316° C and 427° C), respectively.
3. Have a covering of not less than 0.032-inch (0.81 mm) aluminum or corrosion-resistant steel having a base metal thickness not less than 0.0160 inch (0.4 mm) at any point.
4. Be protected by an *automatic sprinkler system* in accordance with Section 903.3.1.1. Where the cooler or freezer is within a building, both the cooler or freezer and that part of the building in which it is located shall be sprinklered.

2603.4.1.3 Walk-in coolers. In nonsprinklered buildings, foam plastic having a thickness that does not exceed 4 inches (102 mm) and a maximum flame spread index of 75 is permitted in walk-in coolers or freezer units where the aggregate floor area does not exceed 400 square feet (37 m²) and the foam plastic is covered by a metal facing not less than 0.032-inch-thick (0.81 mm) aluminum or corrosion-resistant steel having a minimum base metal thickness of 0.016 inch (0.41 mm). A thickness of up to 10 inches (254 mm) is permitted where protected by a thermal barrier.

2603.4.1.4 Exterior walls-one-story buildings. For one-story buildings, foam plastic having a flame spread index of 25 or less, and a smoke-developed index of not more than 450, shall be permitted without thermal barriers in or on *exterior walls* in a thickness not more than 4 inches (102 mm) where the foam plastic is covered by a thickness of not less than 0.032-inch-thick (0.81 mm) aluminum or corrosion-resistant steel having a base metal thickness of 0.0160 inch (0.41 mm) and the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

2603.4.1.5 Roofing. A thermal barrier is not required for foam plastic insulation that is part of a Class A, B or C roof-covering assembly that is installed in accordance with the code and the manufacturer's instructions and is either constructed as described in Item 1 or tested as described in Item 2.

1. The roof assembly is separated from the interior of the building by wood structural panel sheathing not less than 0.47 inch (11.9 mm) in thickness bonded with exterior glue, with edges supported by blocking, tongue-and-groove joints, other approved type of edge support or an equivalent material.
2. The assembly with the foam plastic insulation satisfactorily passes NFPA 276 or UL 1256.

2603.4.1.6 Attics and crawl spaces. Within an attic or crawl space where entry is made only for service of utilities, foam plastic insulation shall be protected against ignition by 1½-inch-thick (38 mm) mineral fiber insulation; ¼-inch-thick (6.4 mm) wood structural panel, particleboard or hardboard; 3/8-inch (9.5 mm) gypsum wallboard, corrosion-resistant steel having a base metal thickness of 0.016 inch (0.4 mm); 1½-inch -thick (38 mm) self-supported spray-applied cellulose insulation in attic spaces only or other approved material installed in such a manner that the foam plastic insulation is not exposed. The protective covering shall be consistent with the requirements for the type of construction.

2603.4.1.7 Doors not required to have a fire protection rating. Where pivoted or side-hinged doors are permitted without a fire protection rating, foam plastic insulation, having a flame spread index of 75 or less and a smoke-developed index of not more than 450, shall be permitted as a core material where the door facing is of metal having a thickness of 0.032-inch (0.8 mm) aluminum or steel having a base metal thickness of not less than 0.016 inch (0.4 mm) at any point.

2603.4.1.8 Exterior doors in buildings of Group R-2 or R-3. In occupancies classified as Group R-2 or R-3, foam-filled exterior entrance doors to individual *dwelling units* that do not require a fire-resistance rating shall be faced with aluminum, steel, fiberglass, wood, or other approved materials.

2603.4.1.9 Garage doors. Where garage doors are permitted without a fire-resistance rating and foam plastic is used as a core material, the door facing shall be metal having a minimum thickness of 0.032-inch (0.8 mm) aluminum or 0.010-inch (0.25 mm) steel or the facing shall be minimum 0.125-inch-thick (3.2 mm) wood. Garage doors having facings other than those described above shall be tested in accordance with, and meet the acceptance criteria of, DAMSA 107.

Exception: Garage doors using foam plastic insulation complying with Section 2603.3 in detached and attached garages associated with one- and two-family dwellings need not be provided with a thermal barrier.

2603.4.1.10 Siding backer board. Foam plastic insulation of not more than 2,000 British thermal units per square foot (Btu/sq. ft.) (22.7 mJ/m²) as determined by NFPA 259 shall be permitted as a siding backer board with a maximum thickness of ½ inch (12.7 mm), provided it is separated from the interior of the building by not less than 2 inches (51 mm) of mineral fiber insulation or equivalent or where applied as insulation with residing over existing wall construction.

2603.4.1.11 Interior trim. Foam plastic used as interior *trim* in accordance with Section 2604 shall be permitted without a thermal barrier.

2603.4.1.12 Interior signs. Foam plastic used for interior sign in *covered mall buildings* in accordance with Section 402.6.4 shall be permitted without a thermal barrier. Foam plastic signs that are not affixed to interior building surfaces shall comply with Chapter 8 of the Dallas [~~International~~] *Fire Code*.

2603.4.1.13 Type V construction. Foam plastic spray applied to a sill plate, joist header and rim joist in Type V construction is subject to all of the following:

1. The maximum thickness of the foam plastic shall be 3¼ inches (82.6 mm).
2. The density of the foam plastic shall be in the range of 1.5 to 2.0 pcf (24 to 32 kg/m³).
3. The foam plastic shall have a flame spread index of 25 or less and an accompanying smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723.

2603.1.14 Floors. The thermal barrier specified in Section 2603.4 is not required to be installed on the walking surface of a structural floor system that contains foam plastic insulation when the foam plastic is covered by a minimum nominal ½-inch-thick (12.7 mm) wood structural panel or approved equivalent. The thermal barrier specified in Section 2603.4 is required on the underside of the structural floor system that contains foam plastic insulation when the underside of the structural floor system is exposed to the interior of the building.

Exception: Foam plastic used as part of an interior floor finish.”

SECTION 41. That Subsection [P] 2902.1, “Minimum Number of Fixtures,” of Section 2902, “Minimum Number of Facilities,” of Subchapter 29, “Plumbing Systems,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“[P] 2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided in the minimum number in accordance with this section and as shown in Table 2902.1 based on the actual use of the building or space. Uses not shown in Table 2902.1 shall be considered individually by the code official. The number of occupants shall be determined by this code.

1. Assembly occupancies: At least one drinking fountain must be provided at each floor level in an *approved* location.

Exception: A drinking fountain need not be provided in a drinking or dining establishment.

2. Groups A, B, F, I, M and S occupancies: Buildings, floors, tenant spaces or portions thereof where persons are employed must be provided with at least one water closet for each sex except as provided in Section 2902.2. Such water closet rooms in connection with food establishments where food is prepared, stored or served must have hand washing facilities therein or adjacent thereto. At least one drinking fountain must be provided at each floor level in an *approved* location.
3. Group E and R occupancies must be provided with fixtures as shown in Table 2902.1.

It is recommended, but not required, that the minimum number of fixtures provided also comply with the number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall be considered individually by the *building official*. The number of occupants shall be determined by this code. Occupancy classification shall be determined in accordance with Chapter 3.

[P] 2902.1.1 Fixture calculations. To determine the *occupant load* of each sex, the total *occupant load* shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the *occupant load* of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

Exception: The total *occupant load* shall not be required to be divided in half where *approved* statistical data indicate a distribution of the sexes of other than 50 percent of each sex.

2902.1.1.1 Occupant load for minimum plumbing facilities. In determining minimum plumbing facilities, the number of occupants for whom minimum plumbing facilities are provided must be computed in accordance with Section 1004.

Exception: Where state law or city ordinance limits the number of students per classroom, fixtures in primary and secondary schools may be provided on the basis of the maximum number of students allowed.

[P] 2902.1.2 Family or assisted-use toilet and bath fixtures. Fixtures located within family or assisted-use toilet and bathing rooms required by Section 1109.2.1 are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.

2902.1.3 Additional fixtures for food preparation facilities. In addition to the fixtures required in this chapter, all food service facilities must be provided with additional fixtures as required in this section.

2902.1.3.1 Hand washing lavatory. At least one hand washing lavatory must be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.

2902.1.3.2 Service sinks and floor sinks. In new or remodeled food service establishments, at least one service sink or one floor sink must be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water and similar liquid waste. The location of the service sinks or mop sinks must be approved by the health department.”

SECTION 42. That Paragraph 3103.1.2, “Permit Required,” of Subsection 3103.1, “General,” of Section 3103, “Temporary Structures,” of Subchapter 31, “Special Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“3103.1.2 Permit required. Temporary structures shall require permits as per Chapter 52, “Administrative Procedures for the Construction Codes,” of the Dallas City Codes ~~[that cover an area greater than 120 square feet (11.16 m²), including connecting areas or spaces with a common means of egress or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a permit from the building official].”~~

SECTION 43. That Section 3109, “Swimming Pool Enclosures and Safety Devices,” of Subchapter 31, “Special Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

**“SECTION 3109
SWIMMING POOLS, SPAS [ENCLOSURES] AND
HOT TUBS [SAFETY DEVICES]**

3109.1 General. ~~The design and construction of s[S]wimming pools, spas and hot tubs shall comply with the *Dallas Swimming Pool and Spa Code*. [requirements of Sections 3109.2 through 3109.5 and other applicable sections of this code. This section does not preempt state law. Compliance with this section is not a safe harbor for compliance with state law.~~

~~**3109.1.1 Fence required.** Every owner, purchaser under contract, lessee, tenant, licensee or other person in possession of a tract, lot or premises on which a swimming pool is situated shall at all times maintain a fence, wall or barrier that completely surrounds the swimming pool.~~

~~**3109.1.2 Swimming pool and filling.** A swimming pool must be provided with a barrier that must be installed, inspected and *approved* prior to plastering or filling the swimming pool with water.~~

3109.2 Definitions. The following terms are defined in Chapter 2:

FRENCH DOORS.

KEYED DEAD BOLT.

KEYLESS DEAD BOLT.

POOL.

POOL OR SPA YARD ENCLOSURE.

POOLS, STATE LAW.

POOL YARD OR SPA YARD.

PREMISES.

PUBLIC POOL OR SPA.

RESIDENTIAL POOL OR SPA.

SPA.

~~**3109.3 Enclosures for p[P]ublic swimming pools and spas.** Public swimming pools and spas shall be completely enclosed in accordance with Sections 3109.3.1 through 3109.3.4.~~

~~3109.3.1 Enclosures for Class A and B pools and spas.~~ Class A and B pools and spas shall be enclosed by a barrier consisting of the following, or its equivalent: a fence, portion of a building, wall, or other durable enclosure.

- ~~1. A building that serves as part of the enclosure shall have doors or gates that open into the pool yard only if:~~
 - ~~1.1. any doors or gates between the building and the pool yard are for entry into a storage room, restroom, shower room, dressing room, or mechanical room adjacent to the pool;~~
 - ~~1.2. the room does not have any door or gate openings to the outside of the pool yard enclosure; and~~
 - ~~1.3. the room does not contain any gas chlorine containers.~~
- ~~2. The enclosure, including doors and gates, shall:~~
 - ~~2.1. have a minimum effective perpendicular height of at least 6 feet as measured from the ground surface on the outside of the fence;~~
 - ~~2.2 have no opening in the enclosure through or under which a 4-inch diameter sphere can pass;~~
 - ~~2.3 be designed and constructed so that it cannot be readily climbed; and~~
 - ~~2.4 have all doors, gates, and windows in the enclosure directly and continuously supervised by staff at the pool during hours of operation, or locked to prevent unauthorized entry.~~

~~3109.3.2 Enclosures for Class C pools and spas and Class D pools at a Class C facility (such as apartment, property owner associations and similar residential developments).~~ *Pool yards* and *spa yards* of apartments, property owner associations and similar residential developments must have an enclosure that meets the following requirements in addition to the requirements of Section 3109.4:

- ~~1. The height of the *pool yard* enclosure must be at least 48 inches measured from the ground on the side away from the pool.~~
- ~~2. Openings under the *pool yard* enclosure may not allow a sphere of 4 inches in diameter to pass under the *pool yard* enclosure.~~
- ~~3. If the *pool yard* enclosure is constructed with horizontal and vertical members and the distance between the tops of the horizontal members is at least 45 inches, the openings may not allow a sphere 4 inches in diameter to pass through the enclosure.~~

- ~~4. If the *pool yard* enclosure is constructed with horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches, the openings may not allow a sphere 1¾ inches in diameter to pass through the enclosure.~~
- ~~5. The use of chain link fencing materials is prohibited entirely for a new *pool yard* enclosure that is constructed after January 1, 1994. The use of diagonal fencing members that are lower than 49 inches above the ground is prohibited for a new *pool yard* enclosure that is constructed after January 1, 1994.~~
- ~~6. Decorative designs or cutouts on or in the *pool yard* enclosure may not contain any openings greater than 1¾ inches in any direction.~~
- ~~7. Indentations or protrusions in a solid *pool yard* enclosure without any openings may not be greater than normal construction tolerances and tooled masonry joints on the side away from the pool.~~
- ~~8. Permanent equipment or structures may not be constructed or placed in a manner that makes them readily available for climbing over the *pool yard* enclosure.~~
- ~~9. The wall of a building may be part of the *pool yard* enclosure only if the doors and windows of the wall comply with Section 3109.3.2.3 and 3109.3.2.4.~~

~~3109.3.2.1 Gates for Class C pools and spas and Class D pools at a Class C facility.~~
~~Gates of the enclosures into *pool yards* and *spa yards* of apartments, property owner associations and similar residential developments must meet the following requirements:~~

- ~~1. Except as provided in Section 3109.3.2.2, a gate in a fence or wall enclosing a *pool yard* as required by Section 3109.3.2 must:~~
 - ~~1.1. have a self-closing and self-latching device;~~
 - ~~1.2. have hardware enabling it to be locked at the option of whoever controls the gate by a padlock or a built-in lock operated by key, card or combination; and~~
 - ~~1.3. open outward away from the *pool yard*.~~
- ~~2. Except as provided in Item 3 and Section 3109.3.2.2, a gate latch must be installed so that it is at least 60 inches above the ground, except that it may be installed lower if:~~
 - ~~2.1. the latch is installed on the *pool yard* side of the gate only and is at least 3 inches below the top of the gate; and~~
 - ~~2.2. the gate or enclosure has no opening greater than ½ inch in any direction within 18 inches from the latch, including the space between the gate and the gate post to which the gate latches.~~

3. A gate latch may be located 42 inches or higher above the ground if the gate cannot be opened by key, card or combination on both sides of the gate.

3109.3.2.2 Existing pool yard enclosures. Existing enclosures into *pool yards* and *spa yards* of apartments, property owner associations and similar residential developments must meet the following requirements:

1. If a *pool yard* enclosure is constructed or modified before January 1, 1994, and no municipal ordinance containing standards for *pool yard* enclosures were applicable at the time of construction or modification, the enclosure must comply with the requirements of Sections 3109.3.2 and 3109.3.2.1, except that:
 - 1.1. if the enclosure is constructed with chain link metal fencing material, the openings in the enclosure may not allow a sphere 2¼ inches in diameter to pass through the enclosure; or
 - 1.2. if the enclosure is constructed with horizontal and vertical members and the distance between the tops of the horizontal members is at least 36 inches, the openings in the enclosure may not allow a sphere 4 inches in diameter to pass through the enclosure.
2. If a *pool yard* enclosure is constructed or modified before January 1, 1994, and if the enclosure is in compliance with applicable municipal ordinances existing on January 1, 1994, and containing standards for *pool yard* enclosures, Sections 3109.3.2, 3109.3.2.1(1) and 3109.3.2.1(2) do not apply to the enclosure.

3109.3.2.3 Doors for Class C pools and spas and Class D pools at a Class C facility. Doors of the enclosure into *pool yards* and *spa yards* of apartments, property owner associations and similar residential developments must meet the following requirements:

1. A door, sliding glass door or *French door* may not open directly into a *pool yard* if the date of electrical service for initial construction of the building or pool is on or after January 1, 1994.
2. A door, sliding glass door or *French door* may open directly into a *pool yard* if the date of electrical service for initial construction of the building or pool is before January 1, 1994 and the *pool yard* enclosure complies with Items 3, 4, or 5, as applicable.
3. If a door of a building, other than a sliding glass door or screen door opens into a *pool yard*, the door must have a:
 - 3.1. latch that automatically engages when the door is closed;

- ~~3.2. — spring-loaded door hinge pin, automatic door closer or similar device to cause the door to close automatically; and~~
- ~~3.3. — keyless bolting device that is installed not less than 36 inches or more than 48 inches above the interior floor.~~
- ~~4. If *French doors* of a building open to the *pool yard*, one of the *French doors* must comply with Item 3.1 above and the other door must have:~~
 - ~~4.1. — a *keyed dead bolt* or keyless bolting device capable of insertion into the doorjamb above the door, and a keyless bolting device capable of insertion into the floor or threshold; or~~
 - ~~4.2. — a bolt with at least a $\frac{3}{4}$ inch throw installed inside the door and operated from the edge of the door that is capable of insertion into the doorjamb above the door and another bolt with at least a $\frac{3}{4}$ inch throw installed inside the door and operated from the edge of the door that is capable of insertion into the floor or threshold.~~
- ~~5. If a sliding glass door of a building opens into the *pool yard*, the sliding glass door must have:~~
 - ~~5.1. — a sliding door handle latch or sliding door security bar that is installed no more than 48 inches above the interior floor; and~~
 - ~~5.2. — a sliding door pin lock that is installed not more than 48 inches above the interior floor.~~
- ~~6. A door, sliding glass door or *French door* that opens into a *pool yard* from an area of a building that is not used by residents and that has no access to an area outside the *pool yard* is not required to have a lock, latch, dead bolt or keyless bolting device.~~
- ~~7. A *keyed dead bolt*, keyless bolting device, sliding door pin lock or sliding door security bar installed before September 1, 1993 may be installed not more than 54 inches from the floor.~~
- ~~8. A *keyed dead bolt* or *keyless dead bolt*, as described by Section 3109.2, installed in a dwelling on or after September 1, 1993, must have a bolt with at throw of not less than 1 inch.~~

3109.3.2.4 Windows and window screens for Class C pools and spas and Class D pools at a Class C facility. ~~Windows and window screens into *pool yards* and *spa yards* of apartments, property owner associations and similar residential developments must meet the following requirements:~~

- ~~1. A wall of a building constructed before January 1, 1994 may not be used as part of a *pool yard* enclosure unless each window in the wall has a latch and unless each window screen on a window in the wall is affixed by a window screen latch, screws or similar means. This does not require the installation of window screens.~~
- ~~2. A wall of a building constructed on or after January 1, 1994 may not be used as part of a *pool yard* enclosure unless each ground floor window in the wall is permanently closed and unable to be opened.~~

~~3109.3.2.5 Building located in pool yard for Class C pools and spas and Class D pools at a Class C facility.~~ Each door, sliding glass door, window and window screen of each dwelling unit in a residential building located in the enclosed *pool yard* must comply with Sections 3109.3.2.3 and 3109.3.2.4.

~~3109.3.3 Enclosures for all other Class C pools and spas and Class D pools at Class C facilities (such as hotels, motels, RV parks, etc.).~~ A Class C pool or spa or a Class D pool at a Class C facility that is not subject to Section 3109.3.2 must have a *pool yard* or *spa yard* enclosure in compliance with this section.

- ~~1. The *pool yard* or *spa yard* enclosure for a pool or spa subject to this section must consist of one or a combination of a fence, portion of a building, wall or other durable enclosure. The enclosure must comply with the following:~~
 - ~~1.1. The enclosure must have a minimum perpendicular height of at least 48 inches as measured from the ground surface on the outside of the fence.~~
 - ~~1.2. Openings in or under the enclosure must not allow the passage of a 4 inch diameter sphere.~~
 - ~~1.3. Planters or other structures that might allow small children to climb over the enclosure are not permitted within 36 inches, measured horizontally, from the outside of the enclosure.~~
 - ~~1.4. Chain link fencing may be used for the enclosure of a pool or spa installed on or before October 1, 1999 if the chain link fencing was installed on or before September 1, 2004. Chain link fencing cannot be used for an enclosure of a pool or spa installed after September 1, 2004.~~
 - ~~1.5. Doors, gates or windows that open into a building are allowed as part of the enclosure of a pool or spa installed on or before October 1, 1999. Windows that are capable of being opened are not allowed as part of an enclosure for a pool or spa erected after October 1, 1999. Doors or gates of a building that are capable of being opened are not allowed as part of an enclosure for a pool or spa installed after October 1, 1999 unless:~~

- 1.5.1. ~~the doors or gates between the building and the *pool yard* or *spa yard* are for entry into a storage room, restroom, shower room, dressing room or mechanical room adjacent to the pool;~~
- 1.5.2. ~~the room does not have any door or gate openings to the outside of the *pool yard* or *spa yard* enclosure; and~~
- 1.5.3. ~~the room does not contain any gas chlorine containers.~~
- 2. ~~Gates and doors for *pool yard* or *spa yard* enclosures for pools and spas subject to this section must:~~
 - 2.1. ~~be equipped with self-closing and self-latching devices and be latched when the pool or spa is not in use; the self-closing device must be designed to keep the gate or door securely closed and the self-latching device must latch when the gate is allowed to close within its range of operation, which is from its fully open position to 6 inches from the fully closed position;~~
 - 2.2. ~~open outward away from the pool or spa except for gates constructed before October 1, 1999 in compliance with applicable city ordinances;~~
 - 2.3. ~~have hand-activated door or gate-opening hardware located at least 3½ feet above the deck or hallway;~~
 - 2.4. ~~be capable of being locked;~~
 - 2.5. ~~be locked if it is for entry into a Class A or B pool or a spa and the pool or spa is not open for use; and~~
 - 2.6. ~~be locked if it is for entry into a Class C pool or a spa or a Class D pool at a Class C facility and the pool or spa needs to be closed because of repairs, hazards or other conditions.~~
- 3. ~~*Pool yard* and *spa yard* enclosures for pools and spas installed after October 1, 1999 must be constructed so that all persons are required to pass through an enclosure gate or door in order to gain access to the pool or spa. All gates and doors exiting a *pool yard* or *spa yard* of a pool installed after October 1, 1999 or a spa must open into a public area or walkway accessible to all users of the pool or spa.~~

3109.3.4 Propping open gates prohibited. ~~The owner of a pool or spa, or the employee or agent of the owner of a pool or spa shall not knowingly allow a gate in a *pool yard* or *spa yard* enclosure to be propped open or remain propped open. A person shall not prop open a gate to a *pool yard* or *spa yard* unless an agent, employee or contractor of the owner is present and doing construction, maintenance or repair work in the *pool yard* or *spa yard* or on its enclosure that reasonably requires the gate to be propped open.~~

~~3109.4 Additional requirements for Class C pools and spas and Class D pools at a Class C facility.~~ Class C pools and spas and Class D pools shall be completely enclosed by a barrier complying with Sections 3109.4.1 through 3109.4.3.

~~Exception:~~ A swimming pool with a power safety cover or a spa with a safety cover complying with ASTM F 1346 need not comply with this section.

~~3109.4.1 Barrier height and clearances.~~ The [top of the] barrier shall comply with Section 3109.3.

~~3109.4.1.1 Openings.~~ Openings in the barrier shall comply with Section 3109.3.

~~3109.4.1.2 Solid barrier surfaces.~~ Solid barriers shall comply with Section 3109.3.

~~3109.4.1.3 Closely spaced horizontal members.~~ Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the barrier shall comply with Section 3109.3.

~~3109.4.1.4 Widely spaced horizontal members.~~ Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, the barrier shall comply with Section 3109.3.

~~3109.4.1.5 Chain link dimensions.~~ Chain link fences shall comply with Section 3109.3.

~~3109.4.1.6 Diagonal members.~~ Diagonal members shall comply with Section 3109.3.

~~3109.4.1.7 Gates.~~ Access doors or gates shall comply with the requirements of Section[s] 3109.3

~~3109.4.1.8 Dwelling wall as a barrier.~~ Where a wall of a *dwelling* serves as part of the barrier, one of the following shall apply:

- ~~1. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door or its screen, if present, are opened. The alarm shall be *listed* and labeled in accordance with UL 2017. In dwellings not required to be *Accessible units, Type A units* or *Type B units*, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be *Accessible units, Type A units* or *Type B units*, the deactivation switch shall be located not higher than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the threshold of the door.~~
- ~~2. The pool shall be equipped with a power safety cover that complies with ASTM F 1346.~~
- ~~3. Other means of protection, such as self-closing doors with self-latching devices, which are *approved*, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Item 1 or 2 above.~~

~~**3109.4.1.9 Pool structure as barrier.** Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier that meets the requirements of Sections 3109.4.1.1 through 3109.4.1.8. Where the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.~~

~~**3109.4.2 Indoor swimming pools.** Indoor swimming pools shall comply with Section 3109.3.~~

~~**3109.4.3 Prohibited locations.** Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.~~

~~**3109.5 Entrapment avoidance.** Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.~~

~~**3109.6 Construction of swimming pools.** The following standards govern the construction of swimming pools.~~

~~**3109.6.1 Public pools.** Public pools and spas must be constructed in compliance with Title 25, Part I, Chapter 265, Subchapter L of the *Texas Administrative Code*, as amended.~~

~~**3109.6.2 Private pools.** A private pool must be constructed in compliance with Appendix Q of the *Dallas One and Two Family Dwelling Code*, as amended.]"~~

SECTION 44. That Section 3313, "Water Supply for Fire Protection," of Subchapter 33, "Safeguards During Construction," of Chapter 53, "Dallas Building Code," of the Dallas City Code is amended to read as follows:

"SECTION 3313 WATER SAFETY FOR FIRE PROTECTION

[F] 3313.1 Where required. An *approved* water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible building materials arrive[s] on the site, on commencement of vertical combustible construction, and on installation of a standpipe system in buildings under construction, in accordance with Sections 3313.2 through 3313.5.

Exception: The *fire code official* is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

[F]3313.2 Combustible building materials. When combustible building materials of the building under construction are delivered to a site, a minimum fire flow of 500 gallons per minute (1893 L/m) shall be provided. The fire hydrant used to provide this fire flow supply shall be within 500 feet (152 m) of the combustible building materials, as measured along an approved fire apparatus access lane. Where the site configuration is such that one fire hydrant cannot be located within 500 feet (152 m) of all combustible building materials, additional fire hydrants shall be required to provide coverage in accordance with this section.

[F]3313.3 Vertical construction of Types III, IV and V construction. Prior to commencement of vertical construction of Type III, IV or V buildings that utilize any combustible building materials, the fire flow required by Sections 3313.3.1 through 3313.3.3 shall be provided, accompanied by fire hydrants in sufficient quantity to deliver the required fire flow and proper coverage.

[F]3313.3.1 Fire separation up to 30 feet. Where a building of Type III, IV or V construction has a **fire separation distance** of less than 30 feet (9144 mm) from property lot lines, and an adjacent property has an **existing structure** or otherwise can be built on, the water supply shall provide either a minimum of 500 gallons per minute (1893 L/m), or the entire fire flow required for the building when constructed, whichever is greater.

[F]3313.3.2 Fire separation of 30 feet up to 60 feet. Where a building of Type III, IV or V construction has a **fire separation distance** of 30 feet (9144 mm) up to 60 feet (18 288 mm) from property lot lines, and an adjacent property has an **existing structure** or otherwise can be built on, the water supply shall provide a minimum of 500 gallons per minute (1893 L/m), or 50 percent of the fire flow required for the building when constructed, whichever is greater.

[F]3313.3.3 Fire separation of 60 feet or greater. Where a building of Type III, IV or V construction has a fire separation of 60 feet (18 288 mm) or greater from a property lot line, a water supply of 500 gallons per minute (1893 L/m) shall be provided.

[F]3313.4 Vertical construction, Types I and II construction. If combustible building materials are delivered to the construction site, water supply in accordance with Section 3313.2 shall be provided. Additional water supply for fire flow is not required prior to commencing vertical construction of Type I and II buildings.

[F]3313.5 Standpipe supply. Regardless of the presence of combustible building materials, the construction type or the **fire separation distance**, where a standpipe is required in accordance with Section 3313, a water supply providing a minimum flow of 500 gallons per minute (1893 L/m) shall be provided. The fire hydrant used for this water supply shall be located within 100 feet (30 480 mm) of the fire department connection supplying the standpipe.”

SECTION 45. That Subchapter 33, “Safeguards During Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Section 3314, “Fire Watch During Construction,” to read as follows:

**“SECTION 3314
FIRE WATCH DURING CONSTRUCTION**

[F]3314.1 Fire watch during combustible construction. A fire watch shall be provided during nonworking hours for construction that exceeds 40 feet (12 192 mm) in height above the lowest adjacent grade at any point along the building perimeter, for new multistory construction with an aggregate area exceeding 50,000 square feet (4645 m²) per story or as required by the fire code official.”

SECTION 46. That Subchapter 33, “Safeguards During Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Section 3315, “Noncombustible Construction for Exposure Protection,” to read as follows:

**“SECTION 3315
NONCOMBUSTIBLE CONSTRUCTION FOR EXPOSURE PROTECTION**

3315.1 Fire safety requirements for buildings of Types IV-A, IV-B, and IV-C construction. Buildings of Types IV-A, IV-B and IV-C construction designed to be greater than six stories above *grade plane* shall comply with the following requirements during construction unless otherwise *approved* by the *fire code official*:

1. Standpipes shall be provided in accordance with Section 3313.
2. A water supply for fire department operations, as *approved* by the *fire code official* and the *fire chief*.
3. Where building construction exceeds six stories above grade plane and noncombustible protection is required by Section 602.4 of the International Building Code, at least one layer of noncombustible protection shall be installed on all building elements on floor levels, including mezzanines, more than four levels below active mass timber construction before additional floor levels can be erected.

Exception: Shafts and vertical exit enclosures shall not be considered part of the active mass timber construction.

4. Where building construction exceeds six stories above grade plane, required exterior wall coverings shall be installed on floor levels, including mezzanines, more than four levels below active mass timber construction before additional floor levels can be erected.

Exception: Shafts and vertical exit enclosures shall not be considered part of the active mass timber construction.”

SECTION 47. That Subchapter 33, “Safeguards During Construction,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended by adding a new Section 3316, “Fire-Resistance-Rated Construction Inventory,” to read as follows:

**“SECTION 3316
FIRE-RESISTANCE-RATED CONSTRUCTION INVENTORY**

3316.1 Owner’s responsibility. The *owner* shall maintain an inventory of all required *fire-resistance-rated* construction, construction installed to resist the passage of smoke and the construction included in Sections 703 through 707 and Sections 602.4.1 and 602.4.2 of the *Dallas Building Code*. Such construction shall be visually inspected by the *owner* annually and properly repaired, restored, or replaced where damaged, altered, breached, or penetrated. Records of inspections and repairs shall be maintained. Where concealed, such elements shall not be required to be visually inspected by the *owner* unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile or similar movable entry to the space.”

SECTION 48. That the APA standards of Subchapter 35, “Referenced Standards,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code are amended by adding the following standard to read as follows:

“ANSI/APA PRG 320—18 Standard for Performance-Rated Cross-Laminated Timber 2303.1.12”

SECTION 49. That the ASTM standards of Subchapter 35, “Referenced Standards,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code are amended by adding the following standard to read as follows:

“D 3498—03(2011) Standard Specification for Adhesives for Field-Gluing Plywood to Lumber
Framing for Floor Systems 703.9”

SECTION 50. That Subsection 4005.2, “Review of Permit Application”, of Section 4005, “Review of Permit Application; Rodent or Insect Infestation; Demolition Review Committee; Special Conditions,” Subchapter 40, “Demolition of Structures,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“4005.2. Review of permit application. If the *building official* determines from the application that, because of the scope of the proposed *demolition* project, further review is necessary, the *building official* may ~~shall~~ call a meeting of the *demolition* review committee. The *building official* shall give the committee members, the owner of the property and the *contractor* at least three days' written notice of the meeting unless the *contractor* requests an earlier meeting.”

SECTION 51. That Subsection 4005.3, “Demolition Review Committee,” of Section 4005, “Review of Permit Application; Rodent or Insect Infestation; Demolition Review Committee; Special Conditions,” Subchapter 40, “Demolition of Structures,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“4005.3 Demolition review committee. The *demolition* review committee is composed of the *building official* as chair and the directors or designated representatives from the following city departments:

1. Department of code compliance.
2. Department of sanitation services.
3. Fire department.
4. Mobility and Street Services Department or its equivalent.
5. Office of Environmental Quality.
6. Police department.”

SECTION 52. That Subsection 4201.1, “Authorization,” of Section 4201, “Authorization and Requirements for Unity Agreements,” Subchapter 42, “Unity Agreements and the Dissolution of Common Boundary Lines for Building Code Purposes,” of Chapter 53, “Dallas Building Code,” of the Dallas City Code is amended to read as follows:

“4201.1 Authorization. The *building official* may authorize the use of a unity agreement ~~[dissolution of common boundary lines]~~ between two or more *building sites* to include the reservation of a designated minimum yard on the adjacent building site ~~[lots]~~ for purposes of this code if a written agreement is executed in accordance with this section on a form provided by the city.

Exception: The *building official* may authorize the use of a unity agreement [~~dissolution of common boundary lines~~] for purposes of this code without the execution of a written unity agreement when the city is an owner or lessee of all of the property involved.

4201.1.1 Creation of a building site. The unity agreement may not be used to create a building site nor as a substitute for platting or replatting as required by the *Dallas Development Code*. This agreement shall not be used to allow buildings or portions thereof to encroach across the property line nor into the adjacent lot.

4201.1.2 Newly created building site and existing buildings. Property lines cannot be created unless the structures are compliant or will be made compliant with the requirements of this code following the permit requirements of Chapter 52, “Administrative Procedures for the Construction Codes,” of the *Dallas City Code*. A property line proposed through an existing building must result in functionally independent structures on each side of the property line. This includes structural load paths as well as all other requirements of this code including exits and restrooms.

4201.1.3 Single-family uses. A site inspection is required prior to the submission of the unity agreement for the building official’s signature. The inspection must verify the existence of the designated minimum yard on the adjacent lot.”

SECTION 53. That a person violating a provision of this ordinance, upon conviction, is punishable by a fine not to exceed \$2,000.

SECTION 54. That Chapter 53 of the Dallas City Code shall remain in full force and effect, save and except as amended by this ordinance.

SECTION 55. That any act done or right vested or accrued, or any proceeding, suit, or prosecution had or commenced in any action before the amendment or repeal of any ordinance, or part thereof, shall not be affected or impaired by amendment or repeal of any ordinance, or part thereof, and shall be treated as still remaining in full force and effect for all intents and purposes as if the amended or repealed ordinance, or part thereof, had remained in force.

SECTION 56. That the terms and provisions of this ordinance are severable and are governed by Section 1-4 of Chapter 1 of the Dallas City Code, as amended.

SECTION 57. That this ordinance shall take effect on May 16, 2022, and it is accordingly so ordained.

APPROVED AS TO FORM:

CHRISTOPHER J. CASO, City Attorney

By _____
Assistant City Attorney

Passed _____