PROPOSED 2021 FIRE CODE ADOPTION WITH AMENDMENTS

ADOPTION OF THE INTERNATIONAL FIRE CODE

The 2021 edition of the International Fire Code, including Appendices B, C, D, E, F, G, H, I, K, and N developed by the International Code Council is hereby adopted by the City of Boerne, Texas, as the fire code for the City from the effective date hereof and shall govern all activities specified therein for the purpose of prescribing regulations governing conditions hazardous to life and property from fire and explosion. The 2021 edition of the International Fire Code as adopted is incorporated by reference as though it was copied fully herein.

ADOPTION OF THE LIFE SAFETY CODE

The 2021 edition of the NFPA 101 Life Safety Code, developed through a consensus standards development process approved by the American National Standards Institute, is hereby adopted and designated as the Life Safety Code by the City of Boerne, Texas. The 2021 edition of the NFPA 101 Life Safety Code as adopted is incorporated by reference as though it was copied fully herein.

Justification – Up to date comprehensive fire codes establish minimum regulations for fire prevention and fire protection systems. The International Fire Code (IFC) is founded on broad-based principles recommended by a diverse group of subject matter experts. The 2021 edition of the IFC is fully compatible with the ICC family of codes.

DEFINITIONS

Whenever the word "jurisdiction" is used in the International Fire Code and the NFPA 101 Life Safety Code, it shall be held to mean the City of Boerne, Texas.

Justification – This definition clarifies the entity the term "jurisdiction" refers to.

Whenever the words "Fire Code Official" are used in the International Fire Code and the NFPA 101 Life Safety Code it shall be held to mean "Boerne Fire Marshal."

Justification – This definition identifies the responsible city employee.

IFC SECTIONS:

SECTION 101.1 Title. These regulations shall be known as the Fire Code of [_____](insert **City of Boerne)**, herein referred to as "this code".

Justification – The IFC is a model code and requires the jurisdiction to insert their name in the title of the code upon adoption.

SECTION 103.1 Creation of Agency. The [_____] (insert **Boerne Fire Marshal's Office)** is hereby created and the official in charge thereof shall be known as the *fire code official*.

Justification – Section 103 creates the code compliance agency for the fire code by name.

SECTION 103 is amended by adding the following:

103.4 Fire Marshal's office personnel and police. Upon request by the Fire Marshal, the Chief of Police is authorized to assign available police officers as necessary to assist the Fire Marshal's Office in enforcing the provisions of this code.

Justification – Allows for increased available manpower to enforce the provisions of the fire code under certain circumstances when required.

SECTION 107.3 PERMIT VALUATIONS is hereby repealed.

Justification – City of Boerne permit fees are not based on project valuations. This section is not relevant to our fire code.

SECTION 109 BOARD OF APPEALS is hereby repealed.

Justification – Historically, appeals for interpretation of the fire code have been referred to the City Manager's Office. Creation of a Board of Appeals has not been necessary.

SECTION 112.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a [_____] insert **misdemeanor**, punishable by a fine of not more than [_____] insert **2000.00** dollars or by imprisonment not exceeding [_____] insert **31 days**, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Justification – Establishes penalties to be determined by the local jurisdiction for inclusion in the adopted code.

SECTION 202 GENERAL DEFINITIONS is amended by adding the following:

Addressable Fire Detection System. A system capable of providing identification and location of individual alarm initiating devices. Such identification shall be transmitted to the central station and reported to the local PSAP for dispatching.

Justification – Clarifies the definition for the preferred type of fire alarm appliance to be installed in newly constructed buildings. Addressable systems help fire department staff locate the location of the component in alarm status instead of generic non-specific zones.

High Rise Building. A building with an occupied floor more than ~~75~~ 55 feet above the lowest level of fire department vehicle access.

Justification – Declaring a building a high-rise building initiates additional safety features to be added to the construction of the building such as emergency lighting, automatic fire suppression,

detection, alarm and communication systems, emergency standby power, emergency command center and integrated fire protection and life safety systems testing. These features assist the fire department from an operational aspect.

SECTION 307.3 EXTINGUISHMENT AUTHORITY is amended by adding the following language:

Where open burning, recreational fires, or portable outdoor fireplaces creates or adds to a hazardous situation, or that is offensive because of smoke emissions, or a required permit for open burning has not been obtained, the *fire code official* is authorized to order the extinguishment of the fire or open burning operation.

Justification – Authorizes the fire code official to take action on private property to protect lives, property and general health of the public.

SECTION 308.1.4 OPEN-FLAME COOKING DEVICES is amended and by repealing exceptions 2 and 3.

"Charcoal burners and other open flame cooking devices shall not be operated on ~~combustible~~ balconies or within 10 feet of combustible construction. The storage or use of fuel fed cooking devices, fire rings, chimineas, fuel fired torches and similar devices on balconies or porches of group R occupancies shall be prohibited.

Exceptions:

1. One- and two-family dwellings.
2. ~~Where buildings balconies and decks are protected by an automatic sprinkler system.~~
3. ~~LP-gas cooking devices having LP-gas container with a water capacity not greater than 2 ½ pounds [nominal 1 pound (0.454 kg) LP-gas capacity.~~

Justification – The amendment removes the qualifier "combustible balconies" due to the variety of combustible and non-combustible materials customarily placed on balconies and standardizes the requirement. This section excepts one- and two-family dwellings.

SECTION 503.2.1 DIMENSIONS is amended by repeal and replacement of the following language:

Fire apparatus access roads shall have an unobstructed paved width of not less than ~~20~~ 26 feet, ~~exclusive of shoulders~~, except for *approved* security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than ~~13~~ 15 feet 6 inches.

Justification – This amendment standardizes the fire apparatus access road width requirement and eliminates confusion for designers to know which dimension is appropriate. The wider dimension also allows fire operations to utilize aerial apparatus in more locations since it requires a wider street for deployment of the truck's outriggers. The increase in vertical clearance aligns with the vertical clearance requirement found in the city's engineering design manual.

SECTIONS 503.2.1.1 DIVIDED ENTRANCE TO PROPERTY and 503.2.1.2 MOUNTABLE CURBS are added to read as follows:

503.2.1.1 DIVIDED ENTRANCE TO PROPERTY. When guard houses, security stations, medians, landscape islands or other similar use obstructions are so located as to create a one-way

property access point and partially obstruct the entrance(s) to a property in any location, such one-way(s) property access point(s) shall be a minimum of 20 feet clear width on approach for the ingress side of the obstruction. This minimum width requirement is only applicable at the point(s) of obstruction and is not permitted along required Aerial Fire Apparatus Access Roads, Fire Apparatus Access Roads adjacent to fire hydrants or fire department connections or at any location where a Fire Apparatus is expected to be positioned for the duration of a fire incident.

Justification – This amendment clarifies fire apparatus roadway widths at property entrance locations where structures are present in addition to gates. The road width requirement considers the minimum gate width requirement and allows for a road width reduction at the point of entry only.

503.2.1.2 Mountable curbs. Mountable curbs are permitted when *approved* by the *fire code official*.

Justification – Designers from time-to-time request permission to allow mountable curb installation in lieu of traditional curb heights. This is seen at round-about locations on occasion.

SECTION 503.2.3 Surface is amended as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support a 75,000-pound imposed load of fire apparatus and the surface shall be made all-weather utilizing concrete or asphalt materials. A signed and sealed letter from a Geotechnical Engineer shall be provided to verify the design meets the standard.

Justification – Historically, designers were allowed to install alternative surfaces instead of concrete or asphalt over required fire apparatus access roads. This amendment standardizes the road surface requirement with those found in the city's engineering design manual and establishes a durable longer lasting drivable surface. Geotechnical Engineer certification is required since private driveways are not inspected by city staff.

SECTION 503.2.8 ANGLES OF APPROACH AND DEPARTURE is amended by adding a second paragraph to read as follows:

503.2.8 ANGLES OF APPROACH AND DEPARTURE. The angles of approach and departure for fire apparatus access roads shall be within the limits established by the fire code official based on the fire department's apparatus.

The City of Boerne Fire Department standard is 6%.

Justification – Fire apparatus are built with an extended front a rear bumper to provide additional hose storage and work surfaces. Extended bumpers will scrape or drag on the road surface if the change in slope is too steep. This amendment addresses this to prevent damage to apparatus and to allow access to all locations served by fire apparatus access roads.

SECTION 503.3 MARKING is amended by adding a second paragraph to read as follows:

503.3 MARKING. When required by the *fire code official*, approved signs or other approved notices or markings that include the words NO PARKING – FIRE LANE shall be provided for *fire apparatus access roads* to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

Where curbs are present adjacent to a fire lane, the face and top of the curb shall be painted utilizing red traffic marking paint. The words NO PARKING– FIRE LANE shall appear in white four- inch block letters spaced at intervals of 20 feet on the curb face. If no curbs are present, a six-inch wide stripe, painted with red traffic marking paint, shall be applied to mark the boundaries of the fire lane. The words NO PARKING – FIRE LANE shall appear in white four-inch block letters spaced at intervals of 20 feet on the red border markings. Where the painting of fire lanes are deemed impractical or impossible by the *fire code official*, signs complying with IFC D103.6 Signs, shall be placed at intervals of 35 feet along the entire length of the approved fire lane. Fire lane markings shall be maintained by the property owner and shall at all times be clearly visible to vehicle operators.

Justification – This amendment changes the stencil spacing on curbs from 12 feet to 20 feet. The 12-foot spacing is more restrictive than neighboring jurisdictions and serves no clear benefit beyond the 20-foot spacing requirement. The sign posting dimensions establishes the minimum sign spacing requirement. The amendment further clarifies the property owner's responsibility to maintain fire lanes.

SECTION 503.3 MARKING is amended by adding section 503.3.1 TAMPERING WITH FIRE LANE MARKINGS AND NO-PARKING ZONE DESIGNATIONS:

503.3.1 TAMPERING WITH FIRE LANE MARKINGS. It is unlawful for any person without prior approval of the *fire code official* to attempt or in fact alter, destroy, deface, injure, knock down, or remove any sign designating a Fire Lane or No-Parking zone or to deface a curb marking, designating a fire lane, in any way.

Justification – This amendment makes it unlawful to interfere with fire lane markings of any kind in any way. It also adds "No-Parking" zone signage tampering as an unlawful act.

SECTION 503.4 OBSTRUCTION OF FIRE APPARATUS ACCESS ROADS is amended by adding:

1. 503.4.1.2 Unattended vehicles. An owner or operator of a vehicle may not leave unattended a vehicle that:
    a. Is in or obstructs a vehicular traffic aisle, entry, or exit of a parking facility
    b. Is in or obstructs a designated fire lane
    c. Is in or obstructs a designated no parking zone

Justification – This amendment clarifies conditions when a vehicle is illegally parked. The key wording here is "unattended vehicle". Vehicles standing in a fire lane with the operator present and in the driver's seat does not constitute a violation. Situations like this are dropping off and picking up passengers and short-term loading or unloading vehicles.

SECTION 503 FIRE APPARATUS ACCESS ROADS is amended by adding the following:

503.7 FIRE LANE DESIGNATION. The Fire Marshal is authorized to designate fire lanes on premises where such areas must be free of parked vehicles and other obstructions to provide ready access to buildings in case of fire or other emergencies. The Fire Marshal's designation of such fire lanes does not obviate the owner of such property of their responsibility to maintain the fire lanes. Owners of private property or their designated representative may request additional fire lanes be designated by the Fire Marshal.

Justification – This amendment authorizes the fire code official to require designation of additional fire lanes when the original conditions have changed on properties served by fire lanes and are found to be inadequate due to the change in conditions or operations on the property.

SECTION 507.5.1 WHERE REQUIRED is amended by adding SECTION 507.5.1.2 FIRE HYDRANT LOCATION AND SPACING:

507.5.1.2 FIRE HYDRANT LOCATION AND AUTHORIZATION. Fire hydrants shall be located and authorized by the following criteria:

No fire flow credit is allowed for hydrants which are inaccessible such as, but not limited to, hydrants located across limited access highways, expressways, arterials, or across creeks, streams, or solid walls and fences greater than 36" in height without pedestrian gate access. Hydrants requiring fire apparatus operators to drive contrary to the normal direction of travel on one-way streets or highway access roads shall be considered inaccessible unless *approved* by the *fire code official*.

Fire hydrants shall be located within the public right-of-way or utility easement (unless hydrant is privately owned) and within 8' of fire apparatus access roads at street intersections or in islands separating parking areas which cannot be obstructed by parked vehicles. Hydrants in areas subject to physical damage shall be protected by approved bollards or other *approved* barriers. Fire hydrants located across four lanes of traffic or more (including turning lanes) or across medians are not considered accessible.

Where existing or proposed fire line(s) and/or existing or proposed fire hydrant(s) are to be used to meet the requirements of the adopted Fire Code and are provided from an adjacent lot, said appurtenances shall be provided with an *approved* dedicated utility easement. The easement is required to be recorded on the adjacent lot's plat that is proposing the shared access. The adjacent lot's plat is to clearly show the utility easement graphically.

Justification – This amendment specifies acceptable criteria for fire hydrant locations and access.

SECTION 507.5.4 OBSTRUCTION is hereby amended by adding SECTION 507.5.4.1 STOPPING, STANDING OR PARKING PROHIBITED IN CERTAIN PLACES:

SECTION 507.5.4.1 STOPPING, STANDING OR PARKING PROHIBITED IN CERTAIN PLACES.

An owner or operator of a vehicle may not stop, stand or park a vehicle, trailer, boat or similar obstruction within 15 feet of a fire hydrant.

Justification – This amendment aligns with state law. It is not found in the model fire code. The amendment is necessary to provide statutory authority to fire department personnel assigned to enforce this section of state law.

SECTION 903.2 WHERE REQUIRED is amended by adding SECTION 903.2.13 ALL NEW BUILDINGS, SECTION 903.2.14 MORE THAN TWO STORIES and SECTION 903.3.1.1.3 FREEZE PROTECTION

as follows:

903.2.13 All new buildings. In addition to the requirements of section 903.2, All new buildings, other than one- and two-family dwellings, with a fire flow requirement as determined by IFC appendix B table B105.1(2) of 1501 gpm or greater, shall be equipped with an *approved* automatic fire sprinkler system in accordance with section 903.3.1.1.

Justification – This amendment requires fire sprinkler installation when a proposed building has a fire flow requirement in excess of 1501 gallons per minute. Fire flow is defined as the amount of water available for firefighting purposes on a building. As the fire flow requirement increases, the number of available fire hydrants increase proportionately. This amendment is intended to reduce the number of fire hydrants required on the city water system and to increase the fire protection feature of the proposed building. Additionally, fire sprinklers use as little as one tenth the volume of water fire fighter's fire hoses use to extinguish building fires. Less water used to extinguish fire is an environmentally responsible objective.

> Exception: Where not required elsewhere in the adopted code, buildings of Type V-B construction less than 4801 square feet of floor area are exempt from requirements found in section 903.2.13. Floor areas are calculated based on outside dimensions of exterior walls and horizontal projections of the roof whichever is greater.

Justification – This exception considers proportionate cost of automatic fire sprinkler installation to general construction cost of a type V-B building under 4801 square feet. Some other jurisdictions researched require automatic fire sprinklers when a building size exceeds 6000 square feet regardless of construction type or occupancy classification.

903.2.14 More than two stories. Buildings greater than two stories above or below grade level shall be equipped with an *approved* automatic fire sprinkler system in accordance with section 903.3.1.1. The hazard class designation shall be *approved* by the *fire code official*.

Justification – This amendment is included in our previous code amendments. Automatic fire sprinkler installation in buildings three stories and higher provides for greater life safety for occupants and fire fighters.

903.3.1.1.3 Freeze protection. In addition to the freeze protection requirements for automatic fire sprinkler systems found in NFPA 13, all attic spaces subject to temperature exposure below 40 degrees shall comply with one of the following:

1. Automatic fire sprinklers located in attic spaces shall be supplied by dry pipe systems only.

2. Branch lines on wet systems serving attic spaces must have installed, a monitored control valve assembly to isolate attic branch lines subject to noncompliant temperature standards.

Justification – This amendment addresses the operational issues associated with freezing fire sprinkler pipes and pipes that burst due to freezing conditions.

SECTION 905.3.1 HEIGHT is amended as follows:

905.3.1 Height. ~~Class III~~ Class I standpipe systems shall be installed throughout buildings where the following condition exist:

~~1. Four or more stories are above or below grade plane.~~

~~2~~. 1. The floor level of the highest story is located more than ~~30 feet~~ 20 feet above the lowest level of fire department vehicle access.

~~3~~. 2. The floor level of the lowest story is located more than ~~30 feet~~ 20 feet below the highest level of fire department vehicle access.

Justification – This amendment assists fire fighters when fighting fire on multi-story buildings. Standpipes effectively extend the length of available hose to extinguish fire inside tall buildings.

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS is amended by adding Section 907.8.5 NUISANCE ALARMS

907.8.5 Nuisance Alarms. The property owner or responsible tenant of an occupancy in which the fire alarm system transmits multiple false alarm signals as a result of repetitive mechanical or equipment failure or lack of proper system maintenance in a rolling 12-month period shall be fined as follows:

1. First Offense. Upon the fifth nuisance alarm, the owner or responsible tenant shall be fined $100.
2. Second Offense. Upon the seventh nuisance alarm, the owner or responsible tenant shall be fined $250.
3. Third Offense. Upon the tenth and all subsequent nuisance alarms, the owner or responsible tenant shall be fined $625.

False and nuisance alarms resulting from weather related or false pull station activation shall not be considered nuisance alarms.

Justification – This amendment encourages property owners to maintain their fire alarm systems in proper operating condition. Safety to occupants and fire fighters is enhanced by reducing the number of false fire alarm activations and subsequent emergency response.

SECTION 912.5. SIGNS is amended by adding SECTION 912.5.1 FDC SIGNS as follows:

912.5.1 FDC signs. The letters "FDC" in 6-inch red letters, displayed on a metal sign having the dimensions of 12 inches wide by 8 inches high, on a white reflective background shall be permanently attached to the wall directly above the fire department connection at a point six to eight feet above finished grade. Such signs shall be visible from the street at all times.

Justification – This amendment requires the posting of Fire Department Connection signs sufficient to be seen by initial responding fire fighters. This can save time and protect property by augmenting the building's existing fire protection features.

SECTION 1103.5.3 Group I-2 Condition 2. In addition to the requirements of Section 1103.5.2, existing buildings of Group I-2, Condition 2 occupancy shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The automatic sprinkler system

shall be installed as established by the adopting ordinance. [_____] (Insert **Prior to Occupancy** inside the brackets.)

Justification – The model code requires adopting jurisdictions to identify the timeline for existing Group I-2, Condition 2 occupancies to install fire sprinklers. Currently, there are no such occupancies located in the city limits meeting this criteria that are unprotected.

SECTION 5601.1.3 FIREWORKS is amended by repealing exceptions 1, 2, and 4 as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:

~~1. Storage and handling of fireworks as allowed in section 5604.~~
~~2. Manufacture, assembly and testing of fireworks as allowed in section 5605.~~
3. The use of fireworks for fireworks displays as allowed in section 5608.
4. ~~The possession storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances and regulations, provided that such fireworks and facilities comply with NFPA 1124, CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks~~.

Justification – This amendment reduces the risk of injury and property loss due to the possession, manufacture, storage, sale, handling and use of fire works inside the city limits.

SECTION 5608.2 PERMIT APPLICATION is amended by adding the following:

5608.2.3 Permit holder. The permit holder shall furnish a certificate of insurance in an amount not less than two-million U.S. dollars and the insurance certificate shall list the City of Boerne as additionally insured.

Justification – This amendment provides financial protection for the city as the permitter of fire works displays performed by certified pyrotechnical operators.

SECTION 5704.2.9.6.1 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which storage is prohibited [_____] Insert **determined in advance by the fire code official.**

Justification – The model code offers local jurisdictions flexibility to determine safe storage quantities of Class I and Class II liquids in pre-established districts.

SECTION 5706.2.4.4 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which storage is prohibited [_____] Insert **determined in advance by the fire code official.**

Justification – The model code offers local jurisdictions flexibility to determine safe storage quantities of Class I and Class II liquids in pre-established districts.

SECTION 5806.2 Limitations. Storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited [____]insert **determined in advance by the fire code official.**

Justification – The model code offers local jurisdictions flexibility to determine safe storage quantities of flammable cryogenic fluids in pre-established districts.

SECTION 6104.2 Maximum capacity within established limits. Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2000 gallons [_____] Insert **subject to approval by the fire code official.**

Justification – The model code offers local jurisdictions flexibility to determine safe storage quantities of liquified petroleum gas in heavily populated or concentrated areas.

Appendix Sections of the International Fire Code

Appendix B Table B105.2 "Required fire flow for buildings other than one- and two-family dwellings, group R-3 and R-4 buildings and townhouses" is amended as follows:

Minimum fire flow, ~~25%~~ 50% of the value in table B105.1 (2)

Justification – Table B105.2 offers a reduction in required fire flow when automatic fire sprinklers are installed in certain buildings. The department standard is a 50% reduction, not 75% as found in the model code. Should the sprinkler system be impaired at the time a fire occurs, 25% of the required fire flow would produce a hazardous condition for citizens and fire fighters in fire conditions.

Appendix Section C103 Fire hydrant spacing is amended by adding the following:

C103.4 CUL-DE-SACS. Any street ending in a cul-de-sac requires a hydrant at the street intersection closest to the cul-de-sac in addition to the existing fire hydrant requirements set forth in Table C102.1 and the Boerne UDC.

Justification – This amendment is carried over from a previous code amendment. It is intended to provide ready access to a fire hydrant when road access from two directions is not available.

APPENDIX D FIRE APPARATUS ACCESS ROADS is amended as follows:

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the International Fire Code, the Boerne UDC and the Boerne Engineering Design Manual.

Justification – This amendment offers a complete definition of fire apparatus access roads to include the UDC.

SECTION D102 REQUIRED ACCESS is amended to read as follows:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an

asphalt or concrete ~~or other approved~~ driving surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds (34,050 kg).

Justification – This amendment clarifies acceptable fire apparatus access road surfaces and aligns with requirements for driveway approach surfaces found in the engineering design manual.

APPENDIX SECTION D103.3 TURNING RADIUS is amended as follows:

D103.3 Turning Radius. The minimum turning radius shall be determined by the *fire code official.* The Boerne Fire Department Standard is 50 feet outside turning radius and a 30 feet inside turning radius. Curb design shall comply with the requirements found in table 2-4 "Intersection Requirements" of the Boerne Engineering Design Manual. In addition, the following radius formula is used to determine curb radii requirements subject to approval by the *fire code official*.

$R = 30 - (L_W - L_M)$ where R is radius in feet, L_W is lane width in feet and L_M is minimum allowable width defined as 12 feet.

Justification – This amendment is intended to assist designers working on draft site plans for approval.

TABLE 103.4 REQUIREMENTS FOR DEAD-END APPARATUS ACCESS ROADS is amended as follows

Length (feet)	Width (feet)	Turnarounds Required
0 – 150	~~20~~ 26	None Required
151- 500	~~20~~ 26	In Accordance with Figure D103.1
501 – ~~750~~ 600	26	In Accordance with Figure D103.1
Over ~~750~~ 600		Special approval required

Justification – This table amendment is intended to eliminate confusion for designers working on site plans for approval. Additionally, it provides greater road width to accommodate aerial apparatus operation in more locations throughout the city. Maximum dead-end road lengths changed to match requirements found in the COB Engineering Design Manual.

SECTION D103.5 FIRE APPARATUS ACCESS ROAD GATES is amended as follows:

D103.5 FIRE APPARATUS ACCESS ROAD GATES. Gates securing the fire apparatus access roads shall operate automatically and shall comply with all of the following criteria:

Justification – This amendment is intended to assist fire fighters by reducing the response time interval on emergency calls. Automatic gates will open upon activation of the apparatus siren (Fire Police and

EMS) and reduce the time required to disembark the apparatus, open the pad lock, push open the gate, board the apparatus and continue on to the emergency.

1.Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). ~~Where a fire apparatus access road consists of a divided roadway, the gate width shall not be less than 12 feet (3658 mm).~~

Justification – This amendment maintains the required 20-foot minimum fire apparatus access road width through gates. Roads of less width potentially create the possibility for obstruction for a variety of reasons including vehicle stacking or stalled vehicles.

9. Plans for gate construction must be approved by the *fire code official* prior to the construction and installation of the gate. A gate construction permit is required prior to the construction of any gate that crosses a fire apparatus access road.

Justification – The permitting requirement offers the Fire Marshal's Office the opportunity to review and approve gate construction plans prior to gate construction and installation. The Fire Marshal's Office can verify the gate operates appropriately upon final inspection.

10. All gates constructed across fire apparatus access roads must be motorized and equipped with a siren activated system (SOS), a Knox Key Switch, and a manual means of operation.

Justification – This amendment clarifies the type of gate construction and locking device operation that will be approved by the fire code official.

SECTION D103.6 SIGNS is amended as follows:

D103.6.1 Roads ~~20~~ to 26 feet in width. Fire lane signs and curb markings as specified in section D103.6 and 503.3 shall be posted on both sides of fire apparatus access roads that are ~~20~~ 26 ~~to~~ ~~26~~ feet wide.

Justification – This amendment removes the 20-foot width option and adds the curb marking requirement for greater clarity.

D103.6.2 Roads more than 26 feet in width. Fire lane signs and curb markings as specified in section D103.6 and 503.3 shall be posted on one side of fire apparatus access roads more than 26 feet wide and less than ~~32~~ 34 feet wide. No signs or markings are required for fire apparatus access roads 34 feet wide or greater unless required by the *fire code official*.

Justification – This amendment adds curb marking to this section and clarifies when fire lane marking is not required. The 34-foot width will comply with minimum street standards identified in the UDC.

APPENDIX SECTION D104 COMMERCIAL AND INDUSTRIAL DEVELOPMENTS is hereby amended as follows:

D104.2 BUILDINGS EXCEEDING 62,000 SQUARE FEET IN AREA is amended by repealing the "Exception" portion of the section.

~~D104.2 EXCEPTION. Projects having a gross *building area* of up to 124,000 square feet (11 520 M^2) that have a single *approved* fire apparatus access road where all buildings are equipped throughout with *approved automatic sprinkler systems*~~.

Justification – This amendment removes the exception to allow projects having a gross building area of up to 124,000 square feet on a single access road when the buildings are equipped with fire sprinklers. Buildings this size present significant fire danger that may require fire apparatus to respond from other fire departments and may need additional access.

D105 AERIAL FIRE APPARATUS ACCESS ROADS

SECTION D105.3 PROXIMITY TO BUILDING is amended as follows:

D105.3 Proximity to building. One or more of the required access routes meeting this condition shall be located not less than 15 feet and not greater than 30 feet from the building and shall be positioned parallel to ~~one~~ two entire sides of the building. The sides of the building on which the aerial apparatus access road is positioned shall be *approved* by the *fire code official*.

Justification – This amendment authorizes the fire code official to identify aerial fire apparatus access roads on two sides of buildings exceeding 30 feet in height. The model code requires only one-sided coverage that may be inadequate to perform fire fighting and rescue operations.

SECTION D105 AERIAL FIRE APPARATUS ACCESS ROADS is amended by adding SECTION D105.5 GRADE and SECTION D105.6 SLOPE as follows:

D105.5 GRADE Aerial fire apparatus access roads shall not exceed 6% in grade in the immediate vicinity of the building or portion thereof.

D105.6 SLOPE Aerial fire apparatus access roads shall not exceed 6% in slope in the immediate vicinity of the building or portion thereof.

Justification – These amendments establish grade and slope requirements that are within the parameters of the recommended safety tolerances for aerial apparatus operations. These amendments will allow for aerial operations in all new locations throughout the city requiring aerial apparatus coverage.