# TOWN OF ORO VALLEY AMENDMENTS TO THE INTERNATIONAL FIRE CODE, 2012 EDITION

The following provision of the International Fire Code, 2012 Edition, as published by the International Code Council, Inc., is hereby amended as follows:

#### **CHAPTER 1**

# At Section 101.1 where it requests [NAME OF JURISDICTION] insert THE TOWN OF ORO VALLEY

Revise Sub-section 101.2.1 as follows:

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted; THEREFORE, THE FOLLOWING APPENDICES ARE ADOPTED AS PART OF THIS CODE:

APPENDIX-B FIRE-FLOW REQUIREMENTS FOR BUILDINGS

APPENDIX-C FIRE HYDRANT LOCATIONS AND DISTRIBUTION

APPENDIX-D FIRE APPARATUS ACCESS ROADS

APPENDIX-E HAZARD CATEGORIES (AS REFERENCE INFORMATION)

APPENDIX-F HAZARD RANKING

APPENDIX-G CRYOGENIC FLUIDS – WEIGHT AND VOLUME EQUIVALENTS (AS REFERENCE INFORMATION)

Revise Section 103 "Title" as follows:

# SECTION 103 DEPARTMENT OF FIRE PREVENTION/BUILDING SAFETY

Revise Section 103.1 as follows:

**103.1 General.** The department of fire prevention/**BUILDING SAFETY** is established within the jurisdiction under the direction of the *fire code official* **IN CONJUNCTION WITH THE BUILDING OFFICIAL.** The function of the department shall be the implementation, administration and enforcement of the provisions of this code.

Revise Section 103.2 as follows:

103.2 Appointment. The fire code official shall be appointed by the chief appointing authority of the jurisdiction; and the fire code official shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority. THE BUILDING OFFICIAL SHALL HAVE EQUAL RESPONSIBILITY FOR ENFORCEMENT OF THIS CODE AND MAY SERVE ALTERNATIVELY WHERE REFERENCE IS MADE TO FIRE CODE OFFICIAL.

Revise Section 105.1.1 as follows:

**105.1.1 Permits required.** Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment which is regulated by this code, or cause any such work to be done, shall first make application to the *fire code official* **FOR OPERATIONAL PERMITS, AND TO THE BUILDING OFFICIAL FOR CONSTRUCTION PERMITS,** and obtain the required permits.

Revise Section 105.2 as follows:

**105.2 Application.** Application for a permit required by this code shall be made to the *fire code official* **OR BUILDING OFFICIAL AS PRESCRIBED BY SECTION 105.1.1**, in such form and detail as prescribed by the *fire code official* **APPLICABLE JURISDICTION**. Applications for permits shall be accompanied by such plans as prescribed by the *fire code official* **APPLICABLE JURISDICTION**.

#### Revise Section 105.3.2 as follows:

105.3.2 Extensions. A permitee holding an unexpired permit shall have the right to apply for an extension of the time within which the permitee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The APPLICABLE *fire code official* is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 180 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated. REQUESTS FOR EXTENSION SHALL BE MADE PRIOR TO EXPIRATION AND SHALL NOT BE GRANTED IF THIS CODE OR ANY OTHER PERTINENT LAWS OR ORDINANCES HAVE BEEN AMENDED SUBSEQUENT TO THE DATE OF APPLICATION. TO RENEW A PERMIT AFTER EXPIRATION, A NEW APPLICATION AND PLANS SHALL BE SUBMITTED AND REVIEW FEES SHALL APPLY AS REQUIRED FOR NEW PERMITS.

Revise Section 105.3.3 as follows:

**105.3.3 Occupancy prohibited before approval**. The building or structure shall not be occupied prior to the *fire code official* **BUILDING OFFICIAL** issuing a **CERTIFICATE OF OCCUPANCY** permit and conducting associated inspections indicating the applicable provisions of this code have been met.

Delete all text in Section 105.3.4 "Conditional permits" and replace with the following:

105.3.4 TEMPORARY CERTIFICATE OF OCCUPANCY. THE BUILDING OFFICIAL IS AUTHORIZED TO ISSUE A TEMPORARY CERTIFICATE OF OCCUPANCY FOR LIMITED OR CONDITIONAL USE OF A BUILDING OR STRUCTURE WHEN REQUESTED BY THE PERMIT APPLICANT. ALL LIFE-SAFETY PROVISIONS REQUIRED AS A CONDITION OF THE PERMIT SHALL BE COMPLETED BEFORE REQUESTS WILL BE CONSIDERED.

Revise Section 105.3.7 as follows:

**105.3.7 Information on the permit.** The **BUILDING** *fire code official* shall issue all permits required by this code on an *approved* form furnished for that purpose. The permit **APPLICATION** shall <del>contain</del> **BE COMPLETED AND SIGNED BY THE APPLICANT AND ALL RELEVANT INFORMATION PROVIDED** a general description of the operation or occupancy and its location and any other description required by the *fire code official*. Issued permits shall bear the signature of the *fire code official* or other approved authorization.

Revise Section 105.4.1 as follows:

**105.4.1 Submittals.** Construction documents and supporting data shall be submitted in two or more sets with each application for a permit and in such form and detail as required by the **BUILDING** fire code official. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. THE DESIGN OF FIRE PROTECTION SYSTEMS SHALL BE INCLUDED IN THE BUILDING CONSTRUCTION DOCUMENT SUBMITTAL.

(Exception unchanged)

Delete Sub-section 105.4.4.1 "Phased approval" in its entirety

Add new Section 105.4.7 as follows:

105.4.7 ELECTRONIC CONSTRUCTION DOCUMENTS. A FULL SET OF APPROVED CONSTRUCTION DOCUMENTS, INCLUDING ANY AS-BUILT DOCUMENTS, SHALL BE PROVIDED AS AN ELECTRONIC FILE. THE ELECTRONIC FILE SHALL BE IN PORTABLE DOCUMENT FORMAT (PDF) AND STORED ON A CD-ROM DISC. ELECTRONIC CONSTRUCTION DOCUMENTS SHALL BE PROVIDED PRIOR TO REQUEST FOR A CERTIFICATE OF OCCUPANCY.

Delete the entire text of Section 108.1, 108.2 and 108.3 and replace as follows:

108.1 BOARD OF APPEALS. APPEALS OF DECISIONS OF THE FIRE CODE OR BUILDING OFFICIAL SHALL BE MADE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, SECTION 113, AS AMENDED.

# Revise Section 109.4 as follows:

**109.4 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 [SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. SUBJECT TO PENALTIES AS PRESCRIBED BY LAW. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

# Revise Section 111.4 as follows:

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than [AMOUNT] dollars or more than [AMOUNT] dollars SUBJECT TO PENALTIES AS PRESCRIBED BY LAW.

Revise Section 113.3 by adding the following text at the end of the section:

THIS FEE SHALL BE EQUAL TO THE AMOUNT OF THE PERMIT FEE REQUIRED BY THE ADOPTED FEE SCHEDULE. THE PAYMENT OF SUCH FEE SHALL NOT EXEMPT AN APPLICANT FROM COMPLIANCE WITH PROVISIONS OF THIS CODE OR OF OTHER ORDINANCES, NOR FROM ANY PENALTIES PRESCRIBED BY LAW.

#### **CHAPTER 2**

Revise Section 202 by adding the following definitions:

DRIVEWAY. A VEHICULAR INGRESS AND EGRESS ROUTE THAT SERVES NO MORE THAN TWO NON-RESIDENTIAL BUILDINGS OR STRUCTURES, NOT INCLUDING ACCESSORY STRUCTURES, AND NO MORE THAN FIVE DWELLING UNITS.

FIRE RISK ANALYSIS. AN ANALYTICAL REVIEW CONDUCTED BY THE FIRE CODE OFFICIAL IN ACCORDANCE WITH NATIONALLY RECOGNIZED STANDARDS TO DETERMINE LEVELS OF FIRE PROTECTION REQUIREMENTS. THE FIRE CODE OFFICIAL MAY UTILIZE NFPA 1142; THE INTERNATIONAL WILDLAND-URBAN INTERFACE CODE; OR OTHER NATIONALLY RECOGNIZED CODES AND STANDARDS FOR THIS PURPOSE.

RESIDENTIAL CARE/ASSISTED LIVING HOME. A BUILDING OR PART THEREOF HOUSING A MAXIMUM OF 10 PERSONS, EXCLUDING STAFF, ON A 24-HOUR BASIS, WHO BECAUSE OF AGE, MENTAL DISABILITY, OR OTHER REASONS, LIVE IN A SUPERVISED RESIDENTIAL ENVIRONMENT WHICH PROVIDES SUPERVISORY, PERSONAL, OR DIRECTED SERVICES. THIS CLASSIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: RESIDENTIAL BOARD AND CARE FACILITIES, ASSISTED LIVING HOMES, HALFWAY HOUSES, GROUP HOMES, CONGREGATE CARE FACILITIES, SOCIAL REHABILITATION FACILITIES, ALCOHOL AND DRUG ABUSE CENTERS, AND CONVALESCENT FACILITIES.

Revise Section 202 "definitions" for Occupancy Classification; Institutional Group I; Sub-section Institutional Group I-1; as follows:

**Institutional Group I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 10 persons who reside on a 24-hour basis in a supervised environment and receive custodial care. The persons receiving care are capable of self preservation. This group shall include, but not be limited to, the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Half-way houses
Residential board and custodial care facilities
Social rehabilitation facilities

**Five or fewer persons receiving care**. A facility such as above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or *International Residential Code* Section P2904 **AS AMENDED**.

**Six to sixteen TEN persons receiving care**. A facility such as above, housing at least six and not more than 16 10 persons receiving such care, shall be classified as Group R-4.

Revise Section 202 "definitions" for Occupancy Classification; Residential Group R-4; as follows:

**Residential Group R-4.** This occupancy shall include buildings, structures or portions thereof for more than five but not more than 16-10 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care.

(remainder of section unchanged)

**CHAPTER 5** 

Revise Section 503.1 as follows:

**503.1 Where required.** Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3, **AND APPENDIX D**.

Revise Section 503.2 as follows:

**503.2 Specifications.** Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8, **AND APPENDIX D**.

Add new Section 503.7 as follows:

503.7 TRAFFIC CONTROL SIGNALING DEVICES. PREMPTIVE TRAFFIC CONTROL SIGNALING DEVICES SHALL BE INSTALLED ON ALL FIRE APPARATUS ACCESS ROADS WHENEVER NEW ELECTRONIC TRAFFIC CONTROL SIGNALING DEVICES ARE INSTALLED.

Revise Section 505.1 as follows:

**505.1 Address identification.** New and existing buildings shall have *approved* address numbers, building numbers, or *approved* building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the *fire code official*, address numbers shall be provided in additional approved locations to facilitate emergency response. **ADDRESS NUMBERS SHALL BE VISIBLE FROM BOTH DIRECTIONS OF TRAVEL ALONG THE FIRE APPARATUS ACCESS ROAD.** Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a

minimum stroke width of 0.5 inch (12.7 mm) **IN ACCORDANCE WITH THE TOWN OF ORO VALLEY ADDRESS DISPLAY REQUIREMENTS.** Where access is by means of a private road and the building **ADDRESS** cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

# Revise Section 507.1 as follows:

507.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. WHERE PROPERTY IS SUBDIVIDED FOR THE EXPRESSED PURPOSE OF PROVIDING PARCELS FOR SALE OR OTHERWISE PERMITTING SEPARATE OR INDIVIDUAL DEVELOPMENT TO OCCUR, AN APPROVED WATER SUPPLY CAPABLE OF SUPPLYING THE PROJECTED FIRE FLOW FOR FIRE PROTECTION SHALL BE PROVIDED AND EXTENDED TO SERVE ALL SUBDIVIDED PROPERTIES. THE PROJECTED FIRE FLOW WILL BE BASED ON THE GREATEST POTENTIAL DEMAND POSED BY ANY OCCUPANCY TYPE ALLOWED BY ZONING LAWS FOR THE PROPERTY.

EXCEPTION: ADDITIONS TO EXISTING AND NEWLY CONSTRUCTED ONE- AND TWO-FAMILY DWELLINGS LOCATED IN AREAS WITHOUT ADEQUATE WATER SUPPLIES, WHERE THE DEVELOPMENT OF FULL FIRE-FLOW IS IMPRACTICAL, MAY COMPLY WITH THE PROVISIONS OF APPENDIX B SECTION B103 WHEN FIRST APPROVED BY THE FIRE CODE OFFICIAL.

Revise Section 507.3 as follows:

**507.3 Fire flow.** Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an *approved* method **AND IN ACCORDANCE WITH APPENDIX B OF THIS CODE**.

Revise Section 507.5 as follows:

**507.5 Fire hydrant systems**. Fire hydrant systems shall comply with Sections 507.5.1 through 507.5.**68 AND WITH APPENDIX C OF THIS CODE.** 

Add new Sub-section 507.5.7 as follows:

507.5.7 REFLECTIVE PAVEMENT MARKERS. WHEN ADJACENT STREETS ARE CONSTRUCTED OF PAVED SURFACES FIRE HYDRANTS SHALL BE IDENTIFIED BY THE INSTALLATION OF APPROVED BLUE REFLECTIVE PAVEMENT MARKERS.

Add new Sub-section 507.5.8 as follows:

507.5.8 OUT OF SERVICE HYDRANTS. OUT OF SERVICE HYDRANTS SHALL BE CLEARLY MARKED OR TAGGED AS OUT OF SERVICE. WHILE THE WATER LINES ARE UNDERGOING BACTERIOLOGICAL CLEANSING AND TESTING, HYDRANTS SHALL BE MARKED AS OUT OF SERVICE. MARKINGS AND TAGS SHALL REMAIN IN PLACE UNTIL THE HYDRANT HAS BEEN INSPECTED, APPROVED, AND RETURNED TO SERVICE BY THE WATER UTILITY.

Add new Sub-section 509.1.2 as follows:

509.1.2 AUTOMATIC SPRINKLER SYSTEM RISER LOCATION. THE AUTOMATIC SPRINKLER SYSTEM FIRE RISER SHALL BE LOCATED WITHIN A BUILDING. DIRECT ACCESS TO THE ROOM THROUGH A DOOR FROM THE EXTERIOR OF THE BUILDING SHALL BE PROVIDED.

# Add new Section 605.12 as follows:

605.12 ELECTRICAL SERVICE SHUTOFF ACCESS. WHERE ELECTRICAL SERVICE SHUT OFF CONTROLS ARE LOCATED INSIDE A BUILDING, A DOOR PROVIDING DIRECT ACCESS FROM THE EXTERIOR TO THE ROOM CONTAINING SUCH SHUT OFF CONTROLS SHALL BE PROVIDED WHERE REQUIRED BY THE *FIRE CODE OFFICIAL*. DOORS SHALL BE IDENTIFIED IN ACCORDANCE WITH SECTION 605.3.1 OF THIS CODE.

**CHAPTER 9** 

#### Revise Section 903.2 as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12 THIS SECTION. THROUGHOUT ALL GROUP A, B, E, F, H, I, M, R AND S OCCUPANCIES, FOR EVERY FACILITY, BUILDING OR PORTION OF A BUILDING CONSTRUCTED WITHIN, OR MOVED INTO THE JURISDICTION.

(Exception remains unchanged)

Revise Section 903.2 by adding the following exception 2:

2. TYPE R-3 OCUPANCIES ARE NOT REQUIRED TO BE PROVIDED WITH AUTOMATIC FIRE SPRINKLER SYSTEMS WHEN THE FIRE FLOW REQUIREMENTS OF SECTION 507.3 OF THIS CODE ARE OTHERWISE MET.

Revise Sub-sections 903.2.1 through 903.2.10 by deleting entirety and reserving the numbering.

Revise Sub-section 903.3.5 as follows:

903.3.5 Water supplies. Water supplies for *automatic sprinkler systems* shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the *International Plumbing Code*. AUTOMATIC SPRINKLER SYSTEM WATER SUPPLY DATA FOR HYDRAULIC CALCULATIONS SHALL BE BASED ON A CURVE THAT IS 90 PERCENT OF THE AVAILABLE WATER SUPPLY CURVE AS DETERMINED BY FLOW TEST INFORMATION.

Add new Sub-section 903.6.1 as follows:

903.6.1 CHANGE OF OCCUPANCY IN NON-SPRINLERED BUILDINGS. AN APPROVED AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT THE FIRE AREA OF EXISTING NON-SPRINKLERED STRUCTURES WHEN THE OCCUPANCY TYPE IS CHANGED TO ANY OF THE FOLLOWING USES: OCCUPANCY TYPE; A, E, F, H, I, R-1, OR R-2.

Add new Sub-section 907.2.24 as follows:

907.2.24 MULTI-TENANT COMMERCIAL BUILDINGS. A MANUAL FIRE ALARM SYSTEM SHALL BE INSTALLED THROUGHOUT ALL BUILDINGS WITH A GROSS BUILDING AREA OF 18,000 SQUARE FEET (1,672 M<sup>2</sup>) OR GREATER WHEN AVAILABLE FOR USE BY MORE THAN ONE TENANT.

EXCEPTION: WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM AND THE ALARM NOTIFICATION APPLIANCES ARE DESIGNED TO ACTIVATE UPON SPRINKLER WATER FLOW.

#### Add new Section 912.7 as follows:

912.7 FIRE DEPARTMENT CONNECTION MARKING. ALL FIRE DEPARTMENT CONECTIONS (FDC) SHALL BE MARKED BY TWO RED STREET LANE REFLECTORS INSTALLED 6 INCHES (152 MM) FROM THE CENTERLINE OF THE FIRE APPARATUS ACCESS ROADWAY ON THE SIDE CLOSEST TO THE FDC. MARKERS SHALL BE PARALLEL TO THE FDC HAVING THE REFLECTIVE ENDS OF THE STREET MARKERS FACING THE DIRECTION OF TRAFFIC. ALTERNATIVE LOCATIONS MAY BE USED WHEN FIRST APPROVED BY THE FIRE CODE OFFICIAL.

**CHAPTER 33** 

# Add new Section 3310.3 as follows:

3310. 3 ADDRESS AND ACCESS ROAD SIGNS. WHILE UNDER CONSTRUCTION, STRUCTURES SHALL BE CLEARLY IDENTIFIED WITH AN ADDRESS AND BUILDING NUMBER. SIGNS TO DIRECT EMERGENCY RESPONDERS INTO AND THROUGH THE CONSTRUCTION SITE SHALL BE PROVIDED. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE OF VEHICLES. SIGNS SHALL BE CLEARLY VISIBLE, WEATHER RESISTANT, AND SHALL BE MAINTAINED UNTIL PERMANENT SIGNS ARE INSTALLED.

**CHAPTER 56** 

# Revise Subsection 5601.2.3 as follows:

**5601.2.3 Permit restrictions. THE STORAGE OF EXPLOSIVES, EXPLOSIVE MATERIALS, AND BLASTING AGENTS IS PROHIBITED WITHIN THE BOUNDARIES OF THE TOWN OF ORO VALLEY**. The *fire code official* is authorized to limit the quantity of *explosives, explosive materials*, or fireworks permitted **FOR USE** at a given location. No person possessing a permit for **USE** <u>storage</u> of *explosives* at any place, shall keep or store an amount greater than authorized in such permit. Only the kind of *explosive* specified in such a permit shall be **USED** <u>kept or stored</u>.

**CHAPTER 57** 

# Revise Subsection 5704.2.9.6.1 as follows:

**5704.2.9.6.1 Locations where above-ground tanks are prohibited.** The storage of Class I and II liquids in above-ground tanks **EXCEEDING 5,000 GALLONS (18,927 LITERS) IN AGGREGATE VOLUME** is prohibited within the **BOUNDARIES OF THE TOWN OF ORO VALLEY** limits established by law as the limits of districts in which such storage is prohibited (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi).

#### Revise Sub-section 5706.2.4.4 as follows:

**5706.2.4.4 Locations where above-ground tanks are prohibited.** The storage of Class I and II liquids in above-ground tanks **EXCEEDING 5,000 GALLONS (18,927 LITERS) IN AGGREGATE VOLUME** is prohibited within the **BOUNDARIES OF THE TOWN OF ORO VALLEY** limits established by law as the limits of districts in which such storage is prohibited (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi).

**CHAPTER 61** 

# Revise Section 6104.2 as follows:

6104.2 Maximum capacity within established limits. Within the limits established by law restricting BOUNDARIES OF THE TOWN OF ORO VALLEY, the storage of liquefied petroleum gas SHALL BE LIMITED TO AN for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not TO exceed a

water capacity of 2,000 gallons (7570 L) (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi).

(Exception unchanged)

#### **APPENDIX B**

#### Revise Section B103.1 as follows:

B103.1 Decreases. The fire ehief 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. CONSIDERATION FOR FIRE-FLOW REDUCTION FOR NEWLY CONSTRUCTED AND EXISTING ONE- AND TWO-FAMILY HOMES SHALL BE THROUGH A FIRE RISK ANALYSIS. THE ANALYSIS TO DETERMINE MINIMUM LEVELS OF FIRE PROTECTION IN AREAS HAVING INADEQUATE FIRE-FLOW SHALL BE ESTABLISHED BY THE FIRE CODE OFFICIAL.

# Revise Section B103.3 as follows:

B103.3 Areas without INADEQUATE water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, AND THE DEVELOPMENT OF FULL FIRE-FLOW IS IMPRACTCAL, the fire code official is authorized to utilize NFPA 1142, of the *International Wildland-Urban Interface Code*, OR OTHER RECOGNIZED STANDARDS TO CONDUCT A FIRE RISK ANALYSIS OF THE AREA. THIS ANALYSIS SHALL ESTABLISH THE MINIMUM LEVEL OF FIRE PROTECTION NECESSARY FOR ALL BUILDINGS PROPOSED TO BE CONSTRUCTED.

#### Revise Section B105.1 as follows:

**B105.1 NEW One- and two-family dwellings**. The minimum fire-flow and flow duration requirements for **NEW** one- and two-family *dwellings* having a fire-flow calculation area that does not exceed 3,600 square feet (334.5 m²), **OR DETACHED ACCESSORY STRUTURES GREATER THAN 1,000 SQUARE FEET ((93 M²)**, shall be 1,000 gallons per minute (3,785.4 L/min) for 1 hour. Fire-flow and flow duration for *dwellings* **AND DETACHED ACCESSORY STRUCTURES** having a fire-flow calculation area in excess of 3,600 square feet (334.5 m²) shall not be less than that specified in Table B105.1.

**Exception:** A reduction in required fire-flow of 50 percent, as *approved*, is allowed when the building is equipped with an *approved automatic sprinkler system*. WHERE DEVELOPMENT OF FIRE-FLOW IS IMPRACTICAL A FIRE RISK ANALYSIS MAY BE CONSIDERED IN ACCORDANCE WITH SECTION B103.1.

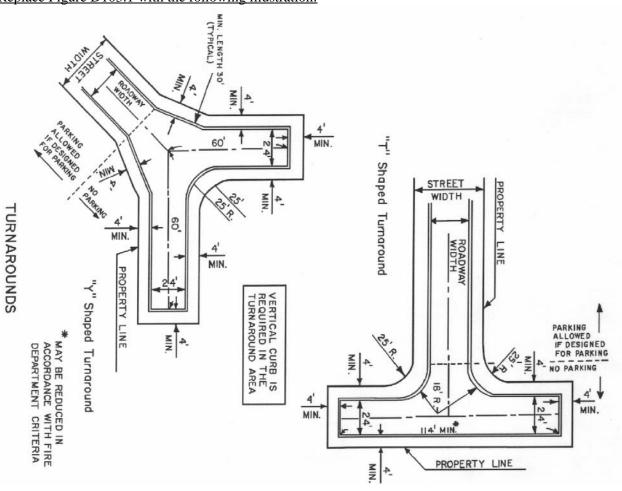
#### **APPENDIX D**

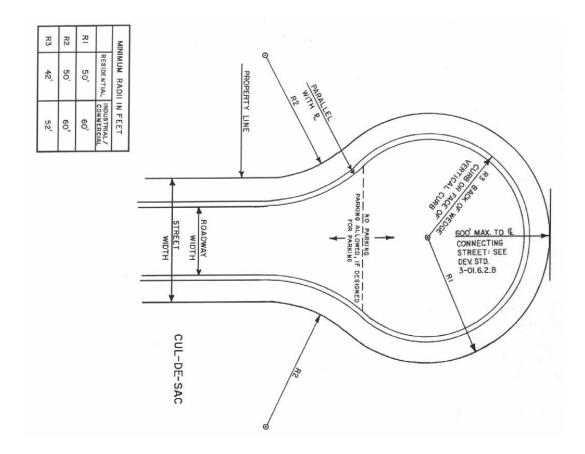
# Revise Section D103.1 as follows:

**D103.1 Access road width with a hydrant**. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7,925 mm) exclusive of shoulders (see Figure D103.1).

EXCEPTION: ACCESS ROAD WIDTH MAY BE LESS THAN 26 FEET (7,925 MM) WHEN FIRST APPROVED BY THE FIRE CODE OFFICIAL.

# Replace Figure D103.1 with the following illustration:





#### Revise the exception in Section D103.2 as follows:

**Exception:** Grades steeper than 10 percent as *approved* by the fire <del>chief</del> **CODE OFFICIAL**.

Replace Table D103.4 with the following table:

# TABLE D103.4 REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

| THE HITHER SHEELS NORDS |                           |   |
|-------------------------|---------------------------|---|
| LENGTH                  | WIDTH                     |   |
| (feet)                  | (feet)                    | TURNAROUNDS REQUIRED                      |
| 0–150                   | 20                        | NONE REQUIRED                             |
|                         |                           | "HAMMERHEAD", "Y" OR CUL-DE-SAC IN        |
| 151-600                 | 20                        | ACCORDANCE WITH FIGURE D103.1 AT TERMINAL |
|                         |                           | END                                       |
|                         |                           | "HAMMERHEAD", "Y" OR CUL-DE-SAC IN        |
| 601–1200                | 26                        | ACCORDANCE WITH FIGURE D103.1 AT TERMINAL |
|                         |                           | END AND MIDWAY                            |
| Over 1200               | SPECIAL APPROVAL REQUIRED |   |
|                         |                           | •   |

**FOR SI: 1 FOOT = 304.8 MM** 

#### Revise Section D103.5 as follows:

**D103.5 Fire apparatus access road gates**. Gates securing fire apparatus access roads shall comply with all of the following criteria:

1. The minimum UNOBSTRUCTED gate width shall be 20 feet (6,096 mm) FOR TWO-LANE TRAFFIC, OR 14 FEET (4,267 MM) FOR SINGLE LANE TRAFFIC. DIMENSIONS FOR GATES SERVING ONE- AND TWO-FAMILY DWELLINGS MAY BE REDUCED WHEN FIRST APPROVED BY THE FIRE CODE OFFICIAL.

(Sub-sections 2, 3 & 4 unchanged)

- 5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be *approved* by the *fire code official* **AND SHALL MEET THE FOLLOWING MINIMUM CRITERIA:** 
  - A. EMERGENCY OPENING DEVICES SHALL BE APPROVED BY THE FIRE CODE OFFICIAL.
  - B. GATES SHALL BE IN THE FULLY OPEN POSITION WITHIN 30 SECONDS OF ACTIVATION.
  - C. GATES SHALL HAVE A MANUAL OVERRIDE SYSTEM LOCATED ON THE ENTRANCE SIDE OF THE GATE, OR WHEN POWER HAS FAILED, GATES SHALL OPEN AUTOMATICALLY AND REMAIN OPEN UNTIL POWER IS RESTORED.
  - D. GATES SHALL HAVE PREEMPTIVE CONTROL OPENING EQUIPMENT COMPATIBLE WITH THE FIRE DEPARTMENT'S EXISTING SYSTEM.

EXCEPTION: GATES FOR ONE AND TWO FAMILY DWELLINGS WHEN FIRST APPROVED BY THE FIRE CODE OFFICIAL.

6. Manual opening gates shall **ONLY** not be locked **IN A MANNER APPROVED BY THE FIRE CODE OFFICIAL** with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools or when a key box containing the key(s) to the lock is installed at the gate location. **IF EQUIPPED WITH AN APPROVED FIRE DEPARTMENT KEY BOX KEYS SHALL BE MAINTAINED CURRENT.** 

(Sub-sections 7, 8, & 9 unchanged)

10. A CONSTRUCTION PERMIT IN ACCORDANCE WITH SECTION 105.1.1 IS REQUIRED TO INSTALL OR MODIFY A GATE ACROSS FIRE APPARATUS ACCESS ROADWAYS.

Add new Subsection D103.5.1 as follows:

D103.5.1 EXISTING FIRE APPARATUS ACCESS ROAD GATES. EXISTING GATES SECURING FIRE APPARATUS ACCESS ROADS SHALL COMPLY WITH SECTION D103.5.

Revise Section D103.6 as follows:

D103.6 Signs. Where required by the *fire code official*, fire apparatus access roads shall be marked with permanent NO PARKING FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background AND THE INTERNATIONAL SYMBOL FOR "NO PARKING" WITH DIMENSIONS AS FOLLOWS: A BLACK "P", SIX INCHES (152.4 MM) HIGH. UNDERNEATH THE NO PARKING SYMBOL, IN 1-5/8 INCH (42 MM) HIGH AND 1/4 INCH (7 MM) STROKE, IN RED LETTERING. IT SHALL READ "FIRE ACCESS TOW-AWAY". Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2. SIGNS ALONG THE REQUIRED FIRE APPARATUS ACCESS ROAD SHALL BE INSTALLED AT INTERVALS NOT TO EXCEED 100 FEET (30,480 MM) AND SHALL BE DIRECTIONAL TO FACE ONCOMING TRAFFIC. THE BOTTOM OF SIGNS SHALL BE NOT LESS THAN 7 FEET (2,134 MM) NOR MORE THAN 10 FEET (3,048 MM) ABOVE GRADE WITH THE NEAREST SIGN EDGE LOCATED NOT LESS THAN 2 FEET (610 MM) FROM THE DRIVE LANE OR EDGE OF CURB. ONLY FIRE APPARATUS ACCESS ROADWAYS REQUIRED IN ACCORDANCE WITH THIS CODE OR AS APPROVED BY THE FIRE CODE OFFICIAL MAY BE IDENTIFIED WITH APPROVED SIGNS. REMOVAL OF UNAUTHORIZED SIGNS SHALL BE REQUIRED.

Replace figure D103.6 with the following:



FIGURE D103.6 FIRE LANE SIGNS

NOTE: ALTERNATIVE SIGNS MAY BE PERMITTED WHEN FIRST APPROVED BY THE FIRE CODE OFFICIAL.

#### Add new Section D103.7 as follows:

D103.7 DRIVEWAYS. DRIVEWAYS EXCEEDING 150 FEET (45,720 MM) IN LENGTH PROVIDING ACCESS TO DWELLING UNITS SHALL PROVIDE A MINIMUM UNOBSTRUCTED WIDTH OF 14 FEET (4,267 MM) AND A MINIMUM UNOBSTRUCTED HEIGHT OF 13 FEET 6 INCHES (4,115 MM). DRIVEWAYS IN EXCESS OF 150 FEET (45,720 MM) IN LENGTH SHALL BE PROVIDED WITH TURNAROUNDS. DRIVEWAYS IN EXCESS OF 200 FEET (60,960 MM) IN LENGTH AND LESS THAN 20 FEET (6,096 MM) IN WIDTH SHALL BE PROVIDED WITH TURNOUTS IN ADDITION TO TURNAROUNDS. DRIVEWAYS IN EXCESS OF 200 FEET (60,960 MM) IN LENGTH SHALL NOT SERVE MORE THAN FIVE DWELLING UNITS UNLESS FIRST APPROVED BY THE FIRE CODE OFFICIAL. DRIVEWAYS THAT CONNECT WITH A ROAD OR ROADS AT MORE THAN ONE POINT MAY BE CONSIDERED AS HAVING A TURNAROUND. DRIVEWAY TURNOUTS AND TURNAROUNDS SHALL HAVE AN ALL-WEATHER ROAD SURFACE NOT LESS THAN 10 FEET (3,048 MM) WIDE AND 30 FEET (9,144 MM) LONG. DRIVEWAY TURNOUTS SHALL BE LOCATED AS REQUIRED BY THE FIRE CODE OFFICIAL.

#### Add new Section D103.8 as follows:

D103.8 DIVIDED FIRE APPARATUS ACCESS ROAD TURNAROUNDS. FIRE APPARATUS ACCESS ROADS THAT ARE DIVIDED BY MEDIANS OR OTHER BARRIERS SHALL BE PROVIDED WITH MEDIAN BREAKS TO ACCOMODATE EMERGENCY VEHICLE TURNAROUND. THE MAXIMUM DISTANCE BETWEEN MEDIAN BREAKS SHALL BE 2,640 FEET (804,700 MM).

# Revise Section D104.2 as follows:

**D104.2 Buildings AND SHOPPING CENTERS exceeding 62,000 square feet in GROSS BUILDING FIRE area**. Buildings, or facilities, **AND SHOPPING CENTERS** having a gross *building* **FIRE** *area* of more than 62,000 square feet (5760 m<sup>2</sup>) shall be provided with two separate and *approved* fire apparatus access roads. (Exception to remain unchanged)

#### Add new Section D104.4 as follows:

D104.4 FIRE APPARATUS ACCESS ROAD WIDTH. FIRE APPARATUS ACCESS ROADS LOCATED IN NEAR PROXIMITY TO A BUILDING OR PORTION OF A BUILDING SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 28 FEET (8,534 MM). FIRE APPARATUS ACCESS ROADS NOT EXCEEDING 32 FEET (9754 MM) IN WIDTH SHALL HAVE SIGNS LOCATED ON BOTH SIDES OF THE ROAD IN ACCORDANCE WITH SECTION D103.6. SIGNS FOR FIRE APPARATUS ACCESS ROADS EXCEEDING 32 FEET (9,754 MM) IN WIDTH SHALL BE LOCATED ON ONE SIDE OF THE ROAD. CURBS OR PAVEMENT ALONG FIRE LANES SHALL BE PAINTED RED AND CLEARLY IDENTIFIED BY LETTERING WHICH STATES "FIRE LANE –NO PARKING" AT INTERVALS NOT TO EXCEED 50 FEET (15,240 MM).

#### Revise Section D105.2 as follows:

**D105.2 Width.** Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 28 feet (7925 8,534 mm), exclusive of shoulders, in the immediate vicinity of the ANY building or portion thereof.

Delete the Exception in Section D106.1 in its entirety:

Delete Section D106.2 in its entirety