

## **Section 7. FIRE HYDRANT CRITERIA**

### **A. General Information**

1. Albuquerque Fire Department (AFD) experience, National Fire Codes, Fire Insurance Regulations (Insurance Services Office) and the Albuquerque Bernalillo County Water Utility Authority (“ABCWUA”) standards provide the hydrant criteria which is used to determine required protection.

2. Albuquerque's fire prevention policies are required to:
  - a. Attain appropriate fire protection of life and property.
  - b. Achieve orderly development of the fire hydrant protection system.
  - c. Set forth guidelines and rules for development of a fire hydrant system.

These policies are a joint effort of the Planning Department and AFD Fire Marshal's Office.

3. Fire hydrants are to be generally installed on mains when water lines are extended, according to spacing criteria that varies according to proposed land use adjacent to the water line. These hydrants may have to be supplemented with additional hydrants when actual development takes place.

Cases also exist where water lines have been extended through undeveloped areas or unplatted land, and hydrants were not installed at the time of water line extension. Necessary hydrants must be installed at the time of adjacent development.

4. Fire hydrants are located within public right-of-way where possible. The type, layout and size of development may dictate location of fire hydrants on private property.

5. Each development must be analyzed for fire hydrant needs. Fire hydrant requirements vary with the size and layout of the buildings, building design and construction materials, and access from and proximity to the public right-of-way.

6. Where private developments require fire hydrants on private property, which benefit no other development, such hydrants shall be privately owned and maintained. Private fire hydrants are typically installed on unmetered, private fire line connections to the ABCWUA main line. A monthly charge is assessed for private fire lines, per the Water and Sewer Rate Ordinance.

### **B. General Fire Hydrant Requirements for Fire Protection**

1. Definitions:

Residential: single family and two family dwellings, duplexes, triplexes, and mobile homes.

Commercial: All buildings not defined above as residential.

2. Hydrant Spacing Requirements

a. Development Areas (Street Measurement, Bonnet to Bonnet)

Residential \* 950' maximum between hydrants

Commercial Hydrant spacing for commercial developments shall be as required by IFC Appendix C

\* In residential areas and mobile home parks, there shall be one (1) hydrant at each street intersection with intermediate hydrants so that no one home is more than 500' (as the fire equipment travels) from a hydrant.

b. New and Existing Individual Buildings

Distance is measured as the fire equipment travels from the fire hydrant to the structure. All distances given are maximums:

Residential 500'

Commercial Hydrant spacing for commercial buildings shall be as required by IFC Appendix C

3. All Required Fire Hydrants

See Section 7.C.3.

**C. New Buildings, Building Additions or Building Reconstruction**

This portion of the policies applies to buildings for which a City building permit is required, including new construction, additional construction, or reconstruction.

1. The AFD Fire Marshal's Office shall review development plans at (or prior to) the time of building plan review to determine the fire protection requirements for the development, for the purpose of determining conformity with adopted City codes and criteria for fire flow quantity, and number of hydrants, location and spacing. (Development plans shall include new development, building additions and/or redevelopment.) Once fire hydrant protection requirement(s) are established in writing by the AFD Fire Marshal's Office (via "Fire Hydrant and Instantaneous Fire Flow Requirements" form – see IFC Appendix B Table B 105.1), ABCWUA will check these requirements against the ability of the water system to provide these requirements. If the water system can meet the requirements, then the hydrant(s) may be designed and constructed per the appropriate chapter in Volume 1, either Public Infrastructure Improvements, Chapter 5 or Private Infrastructure Improvements, Chapter 6. If the water system cannot meet the requirements, then analysis will be made by the Planning Department/ABCWUA to determine what is necessary to rectify the situation (including developer's responsibilities if water system improvements are necessary).
2. Hydrants shall be installed in accordance with the ABCWUA Standard Specifications, Standard Details, and policies, and shall be available for use prior to the beginning of development building construction.
3. Hydrants and fire sprinkler lines shall be installed at the developer's expense, including:

- a. Extension of ABCWUA-owned water lines in accordance with ABCWUA Water and Sewer System Extension and Expansion Policies.
- b. Addition of public fire hydrants to existing water lines.
- c. Construction of Private fire lines and private, on-site hydrants.
- d. All costs of incidental items (e.g., removal and replacement of existing improvements).

#### **D. Existing Development Fire Hydrant Deficiencies**

This portion of the policies applies to existing developments and buildings.

1. The City shall determine deficiencies in fire hydrant protection located in public right-of-way.
2. Where existing development poses a danger to life and property due to fire hydrant deficiencies existing on private property, the AFD may require deficiency correction. The cost of this type of fire hydrant protection shall be borne by the property owner.

#### **E. Public Fire Hydrant Installation Procedure (City Service Area)**

The following procedure has been established to expedite the installation of fire hydrants required as a result of a subdivision or a service request and to insure proper record keeping.

This procedure eliminates the need for a design by a licensed professional engineer, the processing of a SIA, and the need for a formal DRC and Work Order Process. It is intended for use only when no other construction of public infrastructure is required and the City Engineer/ABCWUA determines that the normal design, review, and Work Order Process is not required. This procedure is for construction within or adjacent to local streets and shall not apply to Arterial or Collector streets unless approved by the City Engineer.

1. The owner or contractor must submit plans using the standard forms to the ABCWUA for review and approval. Forms may be obtained at Development and Building Services, Plaza del Sol, 600 2nd St. NW. Plans must include: Zone Atlas page number, legal description, and location of fire hydrant(s) relative to nearest property corner or street centerline intersection. Submitter must provide:

- One set of original mylar forms.
- 4 copies of the original forms.
- Engineering fee established for EACH fire hydrant or fire line.
- Names and phone numbers of the project Contractor, Designer/Engineer, and Owner.
- Shut-Off Plan.

2. The DRC Master Scheduler shall assign a project number to the proposed installation.

3. Upon receipt of the Engineering Fee and approval of the proposed installation, the ABCWUA Development Review Engineer will forward the approved plan to the Construction Division for review and to assign a city inspector to the project.

4. The Construction Division will forward a copy of the approved plan to the owner or owner's contractor. Prior to construction, the contractor must obtain the necessary permits from the City, County and/or Village. A copy of the approved design must accompany the request for

a permit. The contractor must be properly licensed and bonded to do work on the ABCWUA Water System. This must be verified through the City's Permits office.

5. Any soil compaction, asphalt, concrete, or any material testing required by the standard specifications shall be done by the contractor at no expense to the City or ABCWUA.

6. Upon construction of the fire hydrant the contractor will obtain the city inspector's approval of the construction, the Inspector will sign the original which will then be forwarded to the Maps and Records Division for As-Built processing.

7. The Construction Engineer will provide the ABCWUA Development Review Engineer and DRC Master Scheduler written certification that the construction has been completed and accepted.

8. If the construction does not pass inspection and a revised design is required, then steps 1 through 5 must be reinstated. No plat will be signed or meter released until Construction Division has accepted the construction.